

## **‘There’s blood on it’**

Does being aware of the negative social and environmental consequences of cocaine shape intended consumption of causal consumers?

*Jens Schubert*

---

Master Thesis Series in Environmental Studies and Sustainability Science,  
No 2019:016

A thesis submitted in partial fulfillment of the requirements of Lund University  
International Master’s Programme in Environmental Studies and Sustainability Science  
(30hp/credits)



# **LUCSUS**

Lund University Centre for  
Sustainability Studies



**LUND**  
UNIVERSITY

---

## **‘There’s blood on it’**

Does being aware of the negative social and environmental consequences of cocaine shape intended consumption of casual consumers?

Jens Schubert

A thesis submitted in partial fulfillment of the requirements of Lund University International  
Master’s Programme in Environmental Studies and Sustainability Science

Submitted May 14, 2019

Supervisor: Henner Busch, LUCSUS, Lund University



## Abstract

**Background.** The production and trafficking of cocaine causes huge social and environmental problems including deforestation, soil and water pollution, corruption, violence and economic distortions. With growing cocaine demand these effects are equally growing. Cocaine consumption in Germany rises as does environmental and social consciousness. The discrepancy between behaving and preaching 'green', yet taking cocaine has been realised by some accounts in the last decade, yet no scientific research has yet tried to shed light on the individual behavioural peculiarities of taking cocaine. **Research Design.** In this thesis, I study cocaine consumption from unaddicted cocaine consumers from Berlin and how knowledge about the negative social and environmental effects of cocaine is influencing their behaviour. Following the structure of an extension of the *Theory of Planned Behaviour*, the *Integrated Behavioural Model*, I interviewed ten cocaine consumers who use cocaine on less than four occasions per month. I also enquired about the respondents' attitude towards environmentally and socially responsible consumption. **Results.** The results show that, amongst the respondents, knowledge about the social and environmental consequences of cocaine production and the attitude towards responsible consumption in general and of cocaine in particular are good predictors of the intention to lower one's consumption. However, due to co-consumption with other drugs the salience of taking no cocaine is often limited and hinders individuals to actually perform the behaviour. **Discussion.** Three of seven respondents who know about cocaine's negative social and environmental implications do not plan to lower their consumption, utilising individual mechanisms to overlook the wrong they are doing, or overcome or offset their bad conscience. Information is thus a necessary yet not sufficient component for people to decide to act responsibly. Informational campaigns can thus only be one part of a progressive drug policy aiming to reduce cocaine's negative impacts. Politics claiming to take sustainability issues seriously must be open for a discussion about the legalisation and regulation of the cocaine market.

**Keywords:** cocaine consumption, Integrated Behavioural Model, responsible consumption, drug policy, sustainability science, Berlin

**Word count:** 13899

## Kurzfassung

**Hintergrund.** Die Produktion von und der Handel mit Kokain verursachen große gesellschaftliche und Umweltprobleme wie z.B. Entwaldung, Boden- und Wasserverschmutzung, Korruption, Gewalt und volkswirtschaftliche Verzerrungen. Mit steigendem Kokainkonsum wachsen diese Auswirkungen ebenso. Der Kokainkonsum in Deutschland und Umwelt- und Sozialbewusstsein steigen beide an. In den letzten Jahren haben einige Berichte die Diskrepanz zwischen 'grünem' Verhalten und Predigen einerseits und Kokainkonsum andererseits erkannt, es gibt jedoch noch keine Forschung, die die individuellen Besonderheiten des Kokainkonsums aufzuklären versucht. **Studiendesign.** In dieser Masterarbeit untersuche ich den Kokainkonsum von nicht süchtigen Konsumenten aus Berlin und wie deren Wissen über die gesellschaftlichen und Umweltfolgen von Kokain ihr Verhalten beeinflusst. Ich interviewte zehn Konsumenten, die Kokain an weniger als vier Gelegenheiten pro Monat konsumieren und folgte dabei der Struktur des *Integrated Behavioural Model*, einer Erweiterung der *Theory of Planned Behaviour*. Ich erfragte auch die Einstellung der Probanden zu sozial- und umweltbewusstem Konsum. **Ergebnisse.** Die Ergebnisse zeigen, dass das Wissen über die gesellschaftlichen und Umweltfolgen und die Einstellung zu verantwortungsbewusstem Konsum generell und in Bezug zu Kokain bei den Probanden gute Prädiktoren für verringerten intendierten Konsum ist. Allerdings ist aufgrund des Mischkonsums von Kokain mit anderen Drogen die Salienz davon kein Kokain zu nehmen, oft limitiert und hindert die Individuen daran entsprechend zu handeln. **Discussion.** Drei der sieben Teilnehmer, die von den negativen gesellschaftlichen und Umweltfolgen wissen, planen nicht ihren Konsum zu verringern. Sie bedienen sich individueller Mechanismen, um das zu ermöglichen: des 'Übersehens' falschen Handelns oder des Überwindens oder Ausgleichens ihres schlechten Gewissens. Information ist folglich notwendig, jedoch nicht hinreichend für verantwortliches Verhalten. Informationskampagnen können daher nur ein Teil einer progressiven Drogenpolitik mit dem Ziel die negativen Folgen von Kokain zu reduzieren, sein. Eine Politik, die für sich beansprucht, Nachhaltigkeitsprobleme ernst zu nehmen, muss für eine Diskussion über die Legalisierung und Regulierung des Kokainmarktes offen sein.

**Stichwörter:** Kokainkonsum, *Integrated Behavioural Model*, verantwortungsvoller Konsum, Drogenpolitik, Nachhaltigkeitswissenschaften, Berlin

## Acknowledgement

I am grateful that I live in a time of peace in Europe, with the EU allowing me to freely move and study in whichever country I choose to. Thanks to the Swedish education system I could study LUMES without getting indebted. Thank you LUCSUS for having accepted me to LUMES twice.

Thank you to my parents for always providing the right combination of insistence and support, emotional as well as financial.

This study would not have been possible without the participants, the R's. I am so glad you all took part in the process and did your best to support me. You are one of the reasons that made this thesis an actually enjoyable endeavour.

Henner, without your encouragement, I would not have dared to embark on this project. Without your help and commitment, our conversations and discussions, I would not have successfully ended it. Thank you for being the lighthouse during stormy times of disorientation and the well directed wind when confusion stymied me. Annika, Asger, David, Halley, Jana, Laura, Luzie and Ricardo, thank you for your time, your comments, input and questions. Without you this thesis would not exist in its current shape.

Neele, thank you for encouraging me to so spontaneously pack my belongings and move to Lund, although it meant almost two years of long distance relationship. Thank you for supporting me to begin this journey, for being patient with my quirks and whims and for being the bastion of calm in times of doubt. I owe it to you that I became part of this most wonderful family of fellow Lumesians.

Without you, Lumesians (and Tsveti), this journey would not have been as extraordinary as it turned out to be. Thank you for two years of joy, kindness, support and enlightenment. I never experienced such an exceptionlessly positive and heartfelt company. I dedicate this thesis to a lifetime of potlucks, laughs, interesting discussions, hugs, parties, sofa dwellings, sunrises, solidarity, cabin trips and LUMES LOVE <3.

Brooooooz, you terrible bunch of loud yanks, savage vikings, incomprehensible Brits, sinful Mexicans and sporty lumberjacks. You are the best distraction I could ever hope for. Let's get another pitcher.

## Preface

Guaviare, February 12 2019, it is hot and humid when a squad of Colombian anti-narcotic police disembarks helicopters in the middle of a coca field in the horizon-stretching rainforest in this southern *departamento*. They are here to destroy the make-shift laboratory run by the family working this small patch of land. With it they will destroy a year's income and push the peasants back into their desperate plight between hunger and illegal agriculture<sup>1</sup>. At the same time in New York, cold gusts wrap the United States attorney in snow. It is the announcement of the verdict of El Chapo, former head of Mexico's biggest drug cartell, who is being convicted on all accounts of the indictment (Feuer, 2019). Half way around the globe, in Berlin, booming basslines reverberate with the run-down door of the club toilet behind which some mid-twenties, who, not so very long ago, were total strangers, are about to share a line of cocaine. Within the smelly and stuffy confines they are hoping for the nasally deployed boost to prolong the party that's now running for almost 48 hours<sup>2</sup>.

The connection of those very different, (partly) exemplaric fates is cocaine or coca, resp. They represent the three actors in the global cocaine trade: producers, distributors and consumers. They all play their part in the huge illegal machinery which creates injustices, displaces and murders innocent people, fuels corruption, and destroys pristine environment and thousands of species' habitats.

In 2015, I read a column in a Berlin newspaper incriminating vegan hipster cokeheads as hypocritical<sup>3</sup>. I knew some of them but they didn't further contemplate. Pointing to their very low consumption they shrugged the accusation off.

At the end of 2018, I took part in the Global Drug Survey<sup>4</sup>. At that point I had been studying Sustainability Science for 1.5 years, which changed my worldview rather drastically, and particularly my perspective on our global responsibility. There was one question in the survey enquiring how much one would be willing to pay for fair trade cocaine. This reminded me of the column I had read and initiated the process leading to this thesis. I wanted to know why people with a progressive and green attitude consume cocaine. Are they lacking information? Do they just not give a shit? During the project I found more agitated newspaper articles wondering about this apparent behavioural dissonance<sup>5,6</sup>, yet no academic paper looking into it. It seems to be a topic which the public is more aware of than academia. Until now ;)

Yet, no matter if some cocaine consumers will ever be convinced by information about the consequences of their deeds, the root of the problem of cocaine lies deeper: in its illegalisation.

---

<sup>1</sup>Inspired by Harris (2018).

<sup>2</sup>Inspired by Airen (2010).

<sup>3</sup>Der Tagesspiegel: Vegans and drugs: Stop taking cocaine for a start. (Link)

<sup>4</sup><https://www.globaldrugsurvey.com>

<sup>5</sup>The Guardian: Middle-class cocaine users are hypocrites, says Met chief. (Link)

<sup>6</sup>VRT: Mayor Bart De Wever lashed out at the "yoga snuffs", but where did that word come from? (Link)

## Table of Contents

<b>Abstract</b>	<b>i</b>
<b>Kurzfassung</b>	<b>ii</b>
<b>Acknowledgement</b>	<b>iii</b>
<b>Preface</b>	<b>iv</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Motivation . . . . .	1
1.2 Aim and course of action . . . . .	3
1.3 Research question . . . . .	3
<b>2 The cocaine economy from a sustainability perspective</b>	<b>4</b>
2.1 Financial aspects . . . . .	5
2.1.1 <i>Socio-economic impacts of drug money</i> . . . . .	5
2.1.2 <i>Funding of insurgency and terrorism</i> . . . . .	6
2.2 Violence and Crime . . . . .	7
2.2.1 <i>Colombia</i> . . . . .	7
2.2.2 <i>Central and North America</i> . . . . .	8
2.2.3 <i>Europe</i> . . . . .	8
2.3 Public expenditures . . . . .	8
2.4 Environmental aspects . . . . .	9
2.4.1 <i>Deforestation</i> . . . . .	10
2.4.2 <i>Threats for biodiversity</i> . . . . .	11
2.4.3 <i>Coca eradication</i> . . . . .	12
2.4.4 <i>Water and soil contamination</i> . . . . .	12
<b>3 Research design</b>	<b>14</b>
3.1 Theoretical framework: Integrated Behavioural Model . . . . .	14
3.1.1 <i>Emergence</i> . . . . .	14
3.1.2 <i>Structure</i> . . . . .	15
3.1.3 <i>Critique</i> . . . . .	16



3.1.4	<i>Environmentally focused Theory of Planned Behaviour</i>	16
3.2	Methodology	16
3.2.1	Sampling	18
	<i>Personal bounds between researcher and interviewees</i>	18
	<i>Transferring results</i>	19
3.2.2	Semistructured interview	19
3.2.3	Data analysis	21
<b>4</b>	<b>Results</b>	<b>22</b>
4.1	Attitude	22
	4.1.1 <i>Instrumental Attitude</i>	22
	4.1.2 <i>Experiential Attitude</i>	23
4.2	Perceived Norm	23
	4.2.1 <i>Descriptive Norm</i>	23
	4.2.2 <i>Subjective Norm</i>	24
4.3	Personal Agency	24
	4.3.1 <i>Self-Efficacy</i>	24
	4.3.2 <i>Facilitating or constraining conditions</i>	24
	4.3.3 <i>Perceived Behavioural Control</i>	25
4.4	Further Factors	25
	4.4.1 <i>Salience of not taking cocaine</i>	25
	<i>Salience in the moment of the decision</i>	25
	<i>General salience</i>	26
	4.4.2 <i>The habit of not taking cocaine</i>	26
	4.4.3 <i>Intention to take no cocaine</i>	26
	4.4.4 <i>External constraints limiting a lowering of the consumption</i>	26
4.5	Background Factors	27
	4.5.1 <i>Knowledge about cocaine</i>	27
	4.5.2 <i>Attitude towards responsible consumption</i>	27
4.6	Integrated Behavioural Model for the taking of less cocaine	29
<b>5</b>	<b>Discussion</b>	<b>30</b>
5.1	The value of information	30
	5.1.1 <i>Influence of information on respondents' behaviour</i>	31
	5.1.2 <i>The question of conscience</i>	32
	<i>Overlooking wrong</i>	33
	<i>Overcoming conscience</i>	33
	<i>Offsetting conscience</i>	34
	5.1.3 <i>Information salience</i>	34
5.2	Group dynamics	34

5.3	Policy recommendation . . . . .	35
5.3.1	<i>Provision of information</i> . . . . .	36
5.3.2	<i>Legalise it?</i> . . . . .	36
<b>6</b>	<b>Concluding remarks</b>	<b>37</b>
6.1	Future research . . . . .	37
6.2	Conclusion . . . . .	38
	<b>Bibliography</b>	<b>39</b>
<b>A</b>	<b>Appendix</b>	<b>52</b>
A.1	Critical realism . . . . .	52
A.2	Examples for TPB/IBM applications . . . . .	53
A.3	Public expenditure . . . . .	54
A.3.1	<i>Drug treatment</i> . . . . .	54
A.3.2	<i>Supply reduction</i> . . . . .	54
A.3.3	<i>Demand reduction</i> . . . . .	55
A.3.4	<i>Productivity losses</i> . . . . .	55
A.4	Reasons for cocaine consumption . . . . .	56
A.5	Details about descriptive norm . . . . .	57
A.6	Details about subjective norm . . . . .	58
A.7	Details about the salience of saying no in the moment of the offer . . . . .	59
A.8	Declining an offer of cocaine . . . . .	60
A.9	Responsible consumption . . . . .	61
A.10	Information seeking . . . . .	62
A.11	Perceived media reporting . . . . .	63

## List of Figures

1	Cocaine metabolite concentration in wastewater of cities with more than 100,000 (Austria and Switzerland) or 500,000 (Germany) inhabitants and consecutive years of monitoring. Own creation based on data by EMCDDA (2019). . . . .	2
2	Distribution of cocaine consumption in the US in 2010. Graph created by UNODC (2016) using data from Kilmer, Caulkins, and Everingham (2014). . . . .	4
3	From proceeds to illicit financial flows (UNODC, 2017). . . . .	5
4	Breakdown of the costs of drug use borne by society. Taken from UNODC (2016), adapted from Collins, Lapsley, LeCavalier, and Single (2000). . . . .	9
5	Coca cultivation in the three main producing countries, 1994–2017. Own creation based on data by Office of National Drug Control Policy (2018), UNODC (2019), US Department of State (2019). . . . .	10
6	Deforestation due to coca bush cultivation in Colombia, 2001–2013. Own creation based on data by UNODC (2006a). . . . .	11
7	Coca eradication in the three main producing countries, 1994–2017. Own creation based on data by UNODC (2019), US Department of State (2019). . . . .	13
8	Schema of the IBM. Own creation based on Glanz, Rimer, and Viswanath (2008). . . . .	17
9	Network showing interrelations between study participants and researcher (JS). . . . .	20
10	Themes appearing in the interviewee’s responses attributed to the IBM’s constructs. . . . .	28

## List of Tables

- |   |   |    |
|---|---|----|
| 2 | Demographics and consumption parameters of the respondents (cf. figure 2) . . . . .   | 19 |
| 3 | Interviewees' responses coded following the numbering in figure 10. Constructs with low or no variance are omitted. No entry means no statement from the respective person. | 30 |

## Glossary

DN	Descriptive Norm	ix, 20, 30
DPT	Drug production and trafficking	ix, 4, 6–8
EA	Experiential attitude	ix, 23, 30, 32
EBB	Emotional behavioural belief	ix, 20, 23, 27, 30, 32, 33
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction	ix, 1
FCC	Facilitating and constraining conditions	ix, 20, 24, 28, 30, 35
FOMO	Fear of missing out	ix
IA	Instrumental attitude	ix, 30, 32
IBB	Instrumental behavioural belief	ix, 20, 22, 23, 27, 30–33
IBM	Integrated Behavioural Model	ix, 3, 14–16, 18–20, 32, 33
IC	Intended consumption	ix, 20, 26, 30
K	Knowledge about cocaine	ix, 20, 26, 27, 30
NSEAIC	Negative social and environmental impacts of cocaine	ix, 3, 24, 33, 34
PBC	Perceived Behavioural Control	ix, 20, 25, 30
RCC	Attitude towards responsible consumption of cocaine	ix, 30–32
RCG	Attitude towards responsible consumption in general	ix, 20, 27, 30, 32

SE	Self-Efficacy	ix, 20, 24, 28, 30
SN	Subjective Norm	ix, 20, 30
SoB	Salience of saying no	ix, 25, 30
TPB	Theory of Planned Behaviour	ix, 14–16
TRA	Theory of Reasoned Action	ix, 14
UNODC	United Nations Office for Drugs and Crime	ix

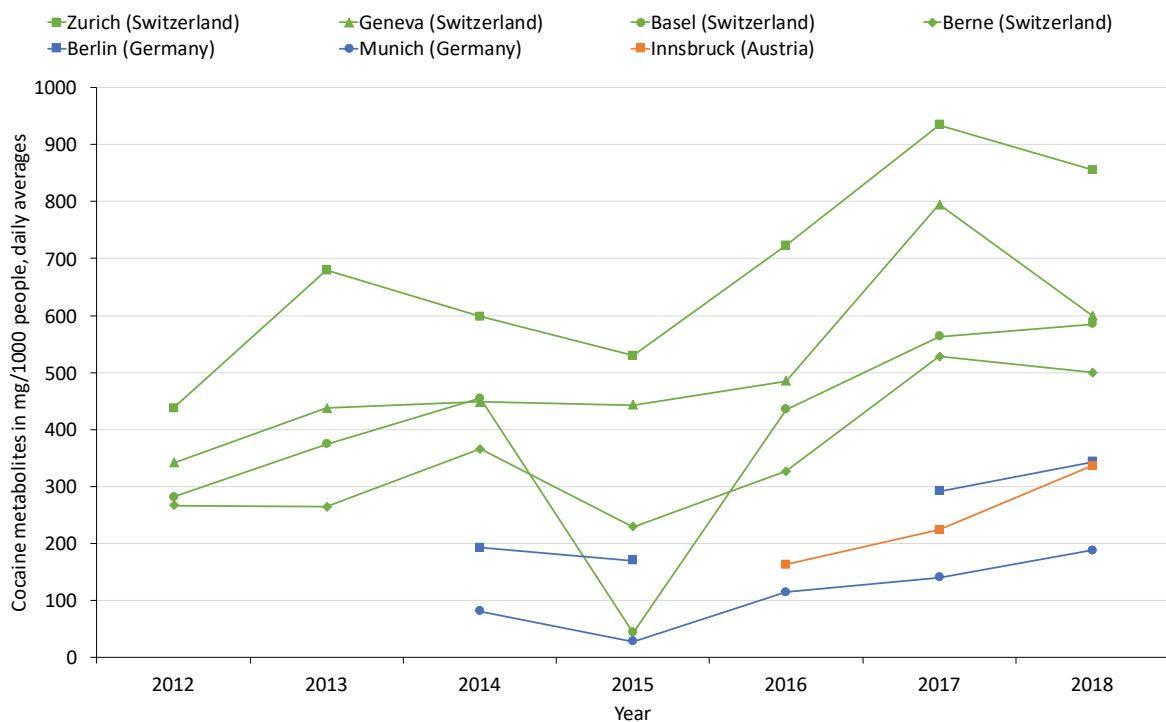
## 1 Introduction

The global cocaine market with its center in Colombia, Peru and Bolivia, spans like a spider web around the globe and constitutes a sustainability issue. Illegality and the states' responses breed organised crime and murder (Snyder & Duran-Martinez, 2009; Stevens, 2010). The capital flowing into the cocaine market can distort local economies in producing countries' communities and fuels corruption, bribery and other streams of illegal business such as human and weapon trafficking, and counterfeiting (UNODC, 2017).

Cocaine production and trafficking is also harmful for the environment (UNODC, 2015). Due to the risk of discovery coca plantations are highly mobile and move into more and more secluded areas of the Andean rainforest thereby increasing deforestation and threatening biodiversity (Bradley & Millington, 2008b; Dávalos et al., 2011; Fjeldså, Álvarez, Lazcano, & León, 2005; Rincón-Ruiz, Correa, León, & Williams, 2016; UNODC, 2006b, 2015; Young, 2004). Coca defoliation through aerial spraying caused displacement and health issues (Camacho & Mejia, 2015; CODHES, 2003; Rincón-Ruiz & Kallis, 2013). For the cultivation of coca and the extraction of cocaine from coca leaves harmful chemicals are being used which are contaminating water and soil (Brain & Solomon, 2009; EMCDDA, 2016; UNODC, 2016). After consumption, cocaine metabolites in wastewater might impede human and animal health (EMCDDA, 2019; Zuccato & Castiglioni, 2009; Zuccato et al., 2008).

### 1.1 Motivation

In 2018 the *European Monitoring Centre for Drugs and Drug Addiction* (EMCDDA) warned of rising availability and purity of cocaine in Europe (EMCDDA, 2018c). Cocaine consumption is also more and more common in German speaking countries as wastewater monitoring by the EMCDDA (2019) proves (see figure 1). German speaking media is increasingly discussing that topic. In 2017, the *Neue Zürcher Zeitung* noted, that '[c]ocaine is nowadays part of everyday life in Zürich' (Baumgartner, Kunz, & Schoop, 2017). In the same year the major German TV news *tagesschau* spoke of a '[c]ocaine flood' (Heinzle, Gürtler, & Strunz, 2017) after seizure amounts rose by 700%. Just recently, the *Handelsblatt's* subsidiary *orange* asked: 'Does Germany have a cocaine problem?' (Florijn, 2019). Especially in Berlin the problem seems large, resulting in two-digit rises of cocaine-related offences and the *Berliner Morgenpost* quoting a city representative stating 'Berlin becomes a cocaine trading hub' (Höppner, 2019; Landeskriminalamt, 2018).



**Figure 1.** Cocaine metabolite concentration in wastewater of cities with more than 100,000 (Austria and Switzerland) or 500,000 (Germany) inhabitants and consecutive years of monitoring. Own creation based on data by EMCDDA (2019).

At the same time climate change awareness (Umweltbundesamt, 2017), environmentally conscious consumption (Umweltbundesamt, 2018) and the awareness for global interconnectedness of social and environmental issues are rising steadily (Umweltbundesamt, 2016).

How can these two phenomena coexist within a society? Are cocaine consumers and environmentally conscious Germans disjunct groups? Or — if not — do cocaine consumers not know about the negative consequences of cocaine production and trafficking?

In 2008 this has been assumed by the Colombian Ex Vice-President Francisco Santos Calderón, resulting in the initiation of the *Shared Responsibility* (SR) campaign. The aim of this initiative was a cooperation of the governments of cocaine producing and consuming countries to educate consumers about the social and environmental implications of their deeds: ‘We want European society to understand that it is helping to destroy the Amazon, that it is helping to kill people. Every line of cocaine that a European snorts is soaked in blood’ (UNODC, 2006b). Calderón’s hope was that educational and informing campaigns that are telling ‘somebody who drives a hybrid, who recycles, who is worried about global warming [...] that [a] night of partying will destroy 4m square of rainforest might lead him to make another decision’ (Laville, 2008). The initiative’s webpage does not exist anymore, yet I couldn’t find nothing about its fate.

Yet maybe the decision to consume drugs is not merely the consequence of a conscious weighing of reasons but rather the consequence of an intrinsic human want for inebriety. The biggest weekly



German newspaper *Die Zeit* is of that opinion and published an appeal to legalise and regulate cocaine (Betancur, 2018). The topic is evidently apparent in the public German discourse.

Nonetheless, there are no scientific studies yet examining the behavioural patterns leading to cocaine consumption.

## **1.2 Aim and course of action**

I wanted to understand the psychological processes and social forces shaping people's cocaine consumption. I was especially interested in how self-appointed environmentally and socially conscious consumers explain or justify the contradictory behaviour of taking cocaine. Can it be accounted to a lack of knowledge?

I first compiled information about the negative social and environmental impacts of cocaine NSEAIC in chapter 2. To shed light on the phenomenon, I chose to interview unaddicted cocaine consumers and analyse the behavioural patterns around taking cocaine using the *Integrated Behavioural Model* (IBM). Chapter 3 explains my choice of theory and methods. The analysis of the interviews will be presented in chapter 4 with a discussion on the importance of information following in chapter 5. Chapter 6 will summarise all the findings and present suggestions for further research.

## **1.3 Research question**

First, in relation to the IBM, I aim to map the psychosocial factors that are coming into play in regard to saying no to cocaine. Second, I use the gathered data to test the hypothesis that socially and environmentally conscious cocaine consumers' consumption can partly be explained by a knowledge-gap and therefore be alleviated by an educational intervention focusing on social and environmental consequences of the cocaine economy.

Hence, the research questions are:

### **Research question 1**

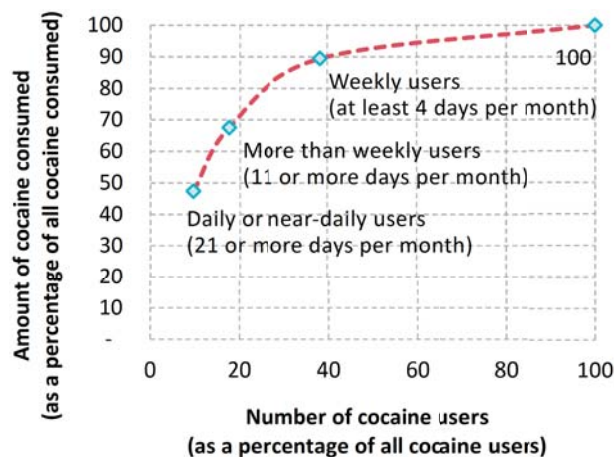
What are the psychosocial factors according to the IBM that come into play in regard to taking less cocaine?

### **Research question 2**

Can information about the negative social and environmental consequences of coca agriculture and cocaine production and distribution have an impact on the psychosocial factors regarding cocaine consumption?

## 2 The cocaine economy from a sustainability perspective

The consumption of cocaine has a variety of consequences, most of which are not directly caused by the very consumption as such, but by its illegalisation. By prohibiting the cocaine economy, the state is deprived of the possibility to control and regulate production, distribution and consumption of cocaine, thereby creating a market not bound to moral limits, economic rules, environmental regulations and medical guidelines (Stevens, 2010). However, given the current legislation this does not excuse the consumer who at least condones all the consequences as there are: funding of crime, terrorism, corruption (see 2.1), cementing social inequalities and injustices (see 2.1), violence directly linked to drug production and trafficking (DPT) (see 2.2), drug-related public expenditures and opportunity costs through productivity losses (see 2.3), and the deforestation of rainforest, the contamination of water and soil and the threat to biodiversity (see 2.4).



**Figure 2.** Distribution of cocaine consumption in the US in 2010. Graph created by UNODC (2016) using data from Kilmer, Caulkins, and Everingham (2014).

It must be noted that many consequences of cocaine consumption are dependent on the extent of the demand—amongst other parameters (EMCDDA, 2003; UNODC, 2011). Simply put, 10% of users are not responsible for 10% of the consequences but for a share of the consequences similar to their share of the total demand. Of course, this comparison is merely illustrative, since the relationship is not monoparametric (cf. Rolles et al. (2016), Sandvik and Hoelscher (2017), Snyder and Duran-Martinez (2009)). All of the subjects of this study are consuming cocaine less than four times per month (see table 2), thus belonging to the 60% of the 18.2 million worldwide users who only consume 10% of

the consumed cocaine (called ‘casual’ consumers here) (see figure 2). Consequently, their impact is considerably lower than the one of high-frequency users.

## 2.1 Financial aspects

In the most recent study of the *United Nations Office on Drugs and Crime* (UNODC) the cocaine market had an estimated volume<sup>1</sup> of US\$ 85 bn in the year 2009 (UNODC, 2011). The amount of cocaine on the market is yearly calculated by extrapolating from the global area under coca bush cultivation, average yield per hectare and the approximate efficacy of the chemical extraction process (UNODC, 2018). In 2016 the UNODC (2018) calculated an all time high of 1410 tons of produced cocaine.

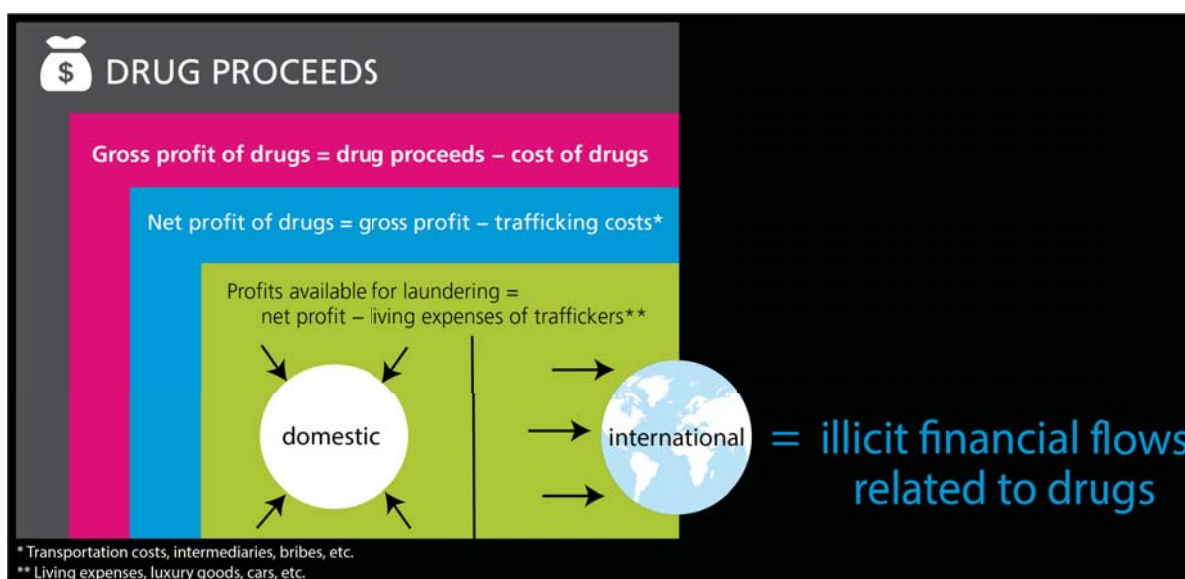


Figure 3. From proceeds to illicit financial flows (UNODC, 2017).

### 2.1.1 Socio-economic impacts of drug money

Most cocaine users are living in North America (34 % of global total) and Europe (ca. 25 % of global total) (UNODC, 2018). In 2009, Europeans were spending US\$ ~28 bn on cocaine, of which US\$ ~15 bn were available for laundering after costs (UNODC, 2011). EMCDDA (2018d) estimated a lower European market size of US\$ ~10 bn<sup>2</sup>. With a laundering-ratio of 55 % as calculated in UNODC (2011) this results in US\$ ~ 5.5 bn available for laundering. Some of this money is laundered domestically, some internationally, thus termed *illicit financial flows*. Figure 3 shows a breakdown of relevant terms. UNODC (2011) and Caulkins et al. (2016) estimate that roughly one third of total drug proceeds are laundered and rein-

<sup>1</sup>Corresponds to *proceeds*, see figure 3.

<sup>2</sup>= (€ 5.7 bn + 0.32 · € 5.7 bn) · 1.33 \$/€ (≙ retail market size + wholesale market size in percent of retail market size times average euro-dollar exchange rate in 2013) (EMCDDA, 2018d; European Central Bank, 2019; UNODC, 2011).

vested across borders. The socio-economic impacts of these are well summarised by the UNODC (2017, pp. 28, 29):

In the short term, an inflow of drug money back into the economy can boost investment and local GDP, generating employment and revenue. The long-term effects, however, tend to be negative, particularly when drug-related proceeds comprise a relatively larger portion of the total economy of a community or a country. In this scenario, drug money has the potential to inflate property prices, distort export figures, create unfair competition, reinforce skewed income and wealth distributions, and increase corruption. In the process, legitimate businesses, without access to illicit funds, may be squeezed out of the market, and new legitimate investments may not take place. The rise of an illicit economy helps to weaken the rule of law and facilitates corruption, which in turn reinforces the vicious economic cycle.

Drug money-fueled corruption is also known to increase income inequality (Gupta, Davoodi, & Alonso-Terme, 2002). Furthermore, high levels of income inequality may evoke DPT due to a society's increased vulnerability to corruption (UNODC, 2012). This can in turn — by closing the reinforcing loop — lead to a perpetuation and exacerbation of income inequality (International Narcotics Control Board, 2003).

Financial flows from drug proceeds also contribute to the spread and expansion of the underlying criminal activities by bolstering their economic viability (UNODC, 2011). Sixty-five percent of organised crime groups involved in drug trafficking in Europe are involved in more than one crime area. Consequently, there is a high probability that drug money also fosters counterfeiting, human and weapon trafficking, fraud and smuggling of migrants (Europol, 2017).

### **2.1.2 Funding of insurgency and terrorism**

During the last decades, cocaine trafficking has often contributed to funding armed violence and terrorism<sup>3</sup> (UNODC, 2017). Nowadays, some evidence suggests that *Boko Haram* and individual commanders of the *Movement for Oneness and Jihad* in North and West Africa<sup>4</sup> are involved in cocaine trafficking or at least the protection of traffickers (Figueira, 2012; Harmon, 2016; Memier, 2017). In general, information on the connection between drugs, terrorism and insurgency is sparse, and relies on media-reports, think-tanks and NGOs, since most governments reports of it are classified (UNODC, 2017). Drug money is assumed to be only one of a few possible revenue streams for terrorist groups, other non-state armed groups and insurgents (ibid.). Whether they tap this stream is determined 'by their size, structure, ideology, location and existence of alternative financial sources' (UNODC, 2017, p. 42).

---

<sup>3</sup>See *Sendero Luminoso* in Peru (Dun, 2009) and FARC in Colombia before the Peace Agreement of 2016 (Romero, 2003; Snyder & Duran-Martinez, 2009; Tickner, Garcia, & Arreaza, 2011).

<sup>4</sup>Transit areas for cocaine to be sold in Europe (UNODC, 2018).

Taking all this into account, it is evident, why the *UN Sustainable Development Goals* include the following in goal 16: 'By 2030 significantly reduce illicit financial [...] flows, [...] and combat all forms of organized crime' (United Nations, 2015).

## **2.2 Violence and Crime**

Goldstein (1985) developed a conceptual framework to understand drug-related violence. According to him, drug-related violence encompasses (1) *psychopharmacological violence*, in which the offender is under the influence of a drug, (2) *economic-compulsive violence*, where it is the offender's aim to obtain drugs or money for drugs to consume and (3) *systemic violence*, which 'refers to the traditionally aggressive patterns of interaction within the system of drug distribution and use' (Goldstein, 1985, p. 497). Casual cocaine consumers can of course commit psychopharmacological or economic-compulsive violence, however, it is systemic violence inherent to drug trade which is supported by every single coin spend for cocaine. Since this thesis explores the responsibility of individual cocaine consumers, exclusively systemic violence data will be presented.

There are studies indicating a general link between DPT and high levels of violence (=systemic violence (EMCDDA, 2018a)), 'often due to competition between involved parties' (UNODC, 2013, p. 16). Albeit, there are also studies questioning whether there is an imperative relationship between illegality and violence (Sandvik & Hoelscher, 2017; Snyder & Duran-Martinez, 2009). They mention the responsibility of governmental policies — namely the War on Drugs — in fashioning illicit drug markets into places of high violence. In any case, by buying cocaine, the individual consumer accepts the violent consequences, no matter whether they are being caused by an intrinsic connection of illegality and violence or the states' response to illicit markets.

For a lot of countries, there are no detailed statistics about whether violence is related to cocaine or even drugs. Global statistics about drugs in general can be misleading in regard to cocaine, because crime in e.g. Afghanistan is most probably not linked to cocaine trafficking (UNODC, 2018). Thus, to avoid a misconception, only data from countries where it is probable that cocaine is involved is presented here., i.e. countries along the supply chain to the US and Europe (ibid.). Hence, the following information does not paint a complete picture of the issue but rather provides some exemplary insights.

### **2.2.1 Colombia**

Colombia's homicide rate began to rise in the 80s — including spectacular killings such as of the US Ambassador Lewis Tambs in 1984 (Bagley, 1988) — and peaked in the early 90s fueled by the rise of the infamous Medellin and Cali cartels and the FARC (Romero, 2003; Tickner et al., 2011; UNODC, 2013, 2017). For the years 1994 to 2008, Mejia and Restrepo (2013) found that a substantial part of crime, violence and displacement could be linked to DPT. A 2013 statement by the former Chief of the Red Cross Colombia, Jordi Reich, supports this claim, saying that organised crime caused 'at least as many

deaths, threats, displacements, and disappearances than the war [with the FARC]' (Escobar and Jimenez, 2013). For 2016 the *Colombian Drug Report* states DPT was the major cause for arrests accounting for 26 % of the total and about half of those were related to coca/-ine (Observatorio de Drogas de Colombia, 2017).

### **2.2.2 Central and North America**

In the recent years about 90 % of cocaine seized in the US transited through Mexico/Central America<sup>5</sup> (US Department of State, 2017). It is suggested that this led to a surge in homicides in Costa Rica and the *Northern Triangle* consisting of Honduras, El Salvador and Guatemala in the early 2010s (Dalby & Carranza, 2019; Labrador & Renwick, 2018; UNODC, 2013). Since around 2015, most cocaine for the US is transported via the Eastern Pacific Route, leading to a decline in homicides in abovementioned countries (Dalby & Carranza, 2019; US Department of Justice, 2018).

Further north along the transit route, in Mexico, DPT can assumedly be linked to 30–47 % of 116 468 homicides reported from 2013 to 2017 (Calderon, Ferreira, & Shirk, 2018). In the US, a stable average of 5 % of homicides between 1987 and 2007 were drug-related (Bureau of Justice Statistics, 2019). However, these numbers also include economic-compulsive and psychopharmacological violence.

### **2.2.3 Europe**

The recently published first EMCDDA analysis regarding drug-related violence states that within the EU only England and Wales issue crime statistics that allow conclusions about the extent of systemic violence. In the two years between March 2013 and March 2015, 13 % of homicides could be assigned to systemic violence (EMCDDA, 2018a). According to Sadiq Khan, the mayor of London, at least some of it can be ascribed to cocaine (Greenfield, 2018).

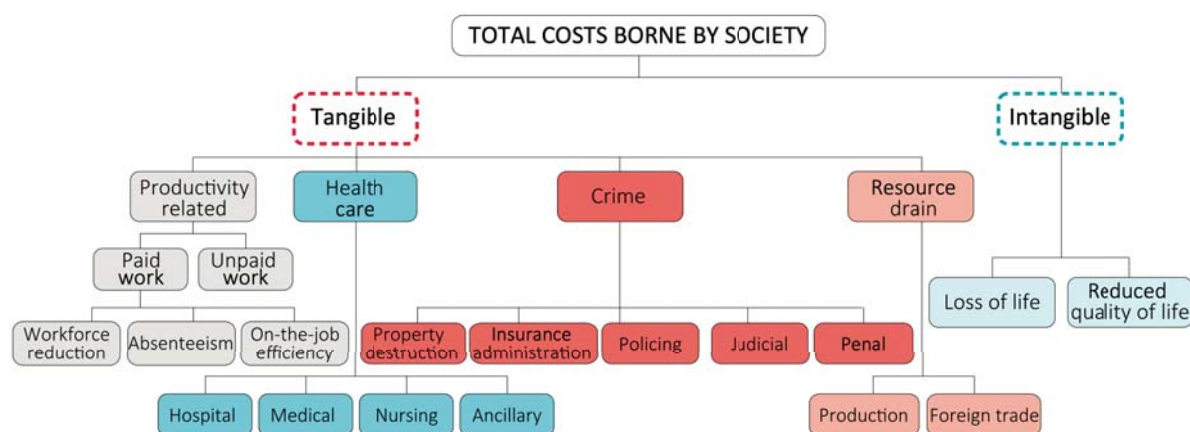
## **2.3 Public expenditures**

The EMCDDA defines drug-related expenditure as 'the sum spent by governments on goods and services with the aim of tackling the illegal drug phenomenon' (Bretteville-Jensen et al., 2017, p. 10). It consists of drug treatment expenditure, expenditure for supply reduction policies and expenditure for demand reduction policies (EMCDDA, 2018b). Most of this is funded by public spending, however private spending (e.g. from insurance companies, families, employers) sometimes partly finances drug treatment measures (Bretteville-Jensen et al., 2017). The private sector is further affected by costs through losses of productivity (UNODC, 2011). Figure 4 shows a breakdown of all drug-related costs borne by society.

Here, the role of the individual consumer lies in financing the illegal drug market, which evokes states to implement supply reduction policies (Stevens, 2010). Furthermore, it can be assumed that the extent

---

<sup>5</sup>Compared to the formerly most common route via the Caribbean and Florida (Bagley, 1988; Labrador & Renwick, 2018)



**Figure 4.** Breakdown of the costs of drug use borne by society. Taken from UNODC (2016), adapted from Collins, Lapsley, LeCavalier, and Single (2000).

of demand reduction policies is dependent on the extent of drug demand (EMCDDA, 2003). Therefore, in the long run a decrease in demand would result in a decline in demand reduction expenditure. Drug treatment expenditure is less clearly linked to the individual’s decision. However, the consumer at least accepts the risk of creating health care costs sometime in the future by becoming a chronic user, who form the group of people responsible for most of the health-related costs (UNODC, 2011, 2016). The same reasoning applies to productivity losses.

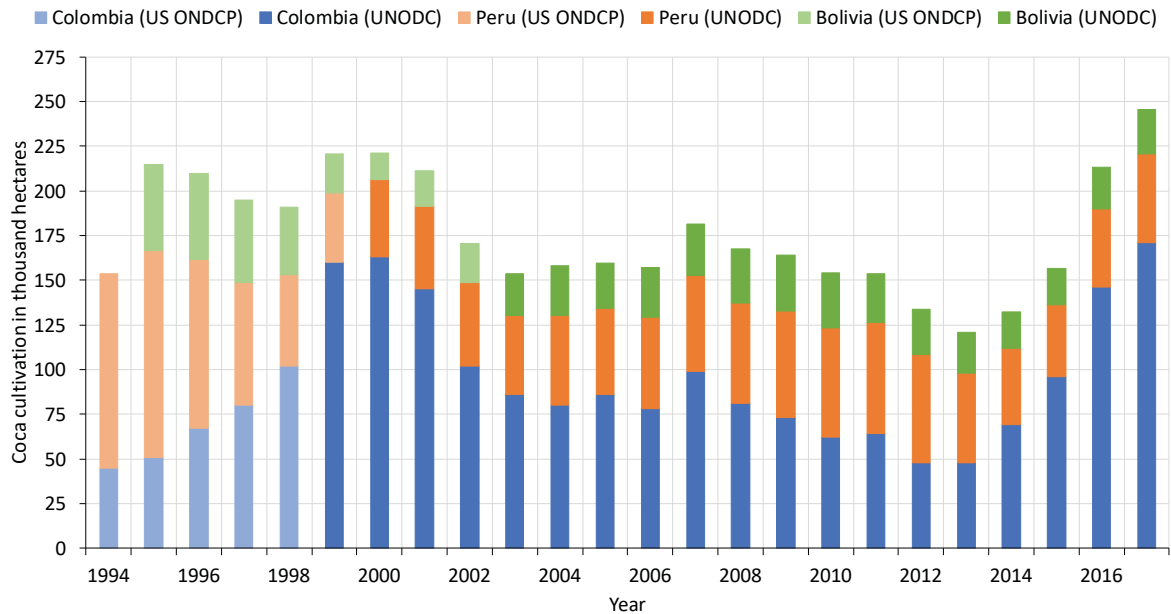
There is too little data to quantify the impact the casual cocaine user has on drug-related public spending. Drug treatment and demand reduction expenditure is almost exclusively driven by high-frequency drug users. Supply reduction policy is a state’s direct response to the illegal drug market (Bretteville-Jensen et al., 2017) whose size is mainly determined by drug demand. Given the fact, that casual cocaine users account for only 10% of the demand (see figure 2), their impact is small but comparatively bigger than in the case of the other two items.

A more thorough analysis of the available data can be found in appendix A.3

## 2.4 Environmental aspects

The coca bush requires specific climatic conditions that are found in the northern Andean and Amazon region spanning across Colombia, Ecuador, Peru and Bolivia. While Ecuador does not produce any coca, the three other countries are responsible for the total global coca leaf production on an area covering 125 000–250 000 hectares in the years 1994–2017 (see figure 5) (UNODC, 2015, 2019). As the most species-rich region on Earth the Andean ecosystem is a biodiversity hotspot, where coca cultivation has devastating consequences (Bradley & Millington, 2008b; UNODC, 2006a). Coca agriculture and cocaine production threatens the rainforest and animals’ habitats through (1) deforestation, (2) increased land erosion and GHG emissions due to slash-and-burn clearing (Gomez et al., 2014), (3) the use of herbicides and fertilisers for cultivation, and (4) the improper disposal of chemicals used in covert cocaine

laboratories (UNODC, 2015). Aerial defoliation of fields with glyphosate to eradicate coca plants can further drive deforestation and has deleterious effects on human and animal health (Camacho & Mejia, 2015; Messina & Delamater, 2006).

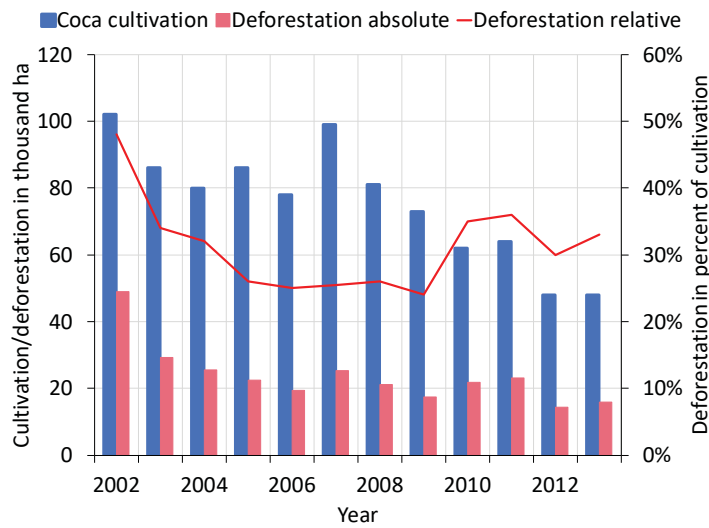


**Figure 5.** Coca cultivation in the three main producing countries, 1994–2017. Own creation based on data by Office of National Drug Control Policy (2018), UNODC (2019), US Department of State (2019).

### 2.4.1 Deforestation

Amongst these malpractices, deforestation is best researched. Huge areas of pristine forest are being cleared to cultivate coca each year. This can even be the case despite an absolute decline in coca cultivation area due to the high mobility of coca agriculture (Dávalos et al., 2011). It is driven by violent conflicts forcing farmers away from existing plantations (Álvarez, 2003), the risk of discovery by law enforcement and eradication (Bradley & Millington, 2008b), and new growers hoping to improve their income (Bradley & Millington, 2008a; Young, 1996). UNODC (2006a) shows that in Colombia in 2003 only 2% of the area that was cultivated in 2000 was still used for coca agriculture (UNODC, 2019). In each of the four years an average area of 74 100 hectares of new coca plantings accrued. A mean of 26% of coca was cultivated on land cleared from primary forest (corresponds to a total of 97 622 hectares), and 41% on land cleared from secondary forest. Ongoing studies by Colombia’s national illicit drug monitoring system using satellite imaging led to estimations that between 2001 and 2013 ca. 290 000 ha of forest were cleared to grow coca (see figure 6) (UNODC, 2015). These figures do not include areas that are deforested for housing, cattle pasture, subsistence crops, clandestine airstrips, or roads (UNODC, 2006a) which may amplify deforestation by 2.5–3 times (Cavelier & Etter, 1995).





**Figure 6.** Deforestation due to coca bush cultivation in Colombia, 2001–2013. Own creation based on data by UNODC (2006a).

No comparably exact figures are available for Peru. Young (2004) estimates that between 1975 and 1990 700 000–1 000 000 million ha of tropical forest were cut down in Peru. This number coincides well with the economic estimation by Henkel (1995) and Dourojeanni’s (1992) proposition that coca agriculture is responsible for one tenth of the total deforestation in Peru in the 20th century (UNODC, 2006a).

In Bolivia vast areas of the Chapare region were clear cut for colonisers and later also used for coca agriculture. Henkel (1995) estimates that until 1990 coca cultivation has led to the clearing 8 000–10 000 ha of primary forest and 25 000–30 000 ha of secondary forest.

Cocaine distribution also contributes to deforestation. Land-use intensive money laundering investments such as cattle farming or timber harvesting, and the need for clandestine distribution infrastructure such as airstrips are advancing loss of tropical forest (Sesnie et al., 2017). In Honduras, Nicaragua and Guatemala, 15–30 % of forest loss between 2007 and 2017 can be attributed to cocaine trafficking (ibid.). Both deforestation and cocaine transport contribute to the carbon footprint of cocaine, however I could not find any studies quantifying the impact.

#### **2.4.2 Threats for biodiversity**

Compared to other crops, coca fields show inverted expectations of spatial expansion: the best coca plantations are not in flat, easily accessible spots, but rather isolated in hilly areas. This aggravates forest fragmentation and thus habitat degradation (UNODC, 2006a; Young, 2004). The Huallaga valley in Peru, whence until the early 90s most of the coca originated (UNODC, 2018), showed a very depleted avifauna ‘with almost total lack of genuine forest species and potential game birds’ (Fjeldså et al., 2005, p. 205) around 2000 (Schjellerup, Achùtegui, & Quipuscoa Silvestre, 2001). In the northern Andean

region, 39 % of areas with high richness and high endemism of birds overlapped by more than 20 % with coca cultivation areas at the time of the study (Fjeldså et al., 2005). Consequently, it can be assumed that coca agriculture leads to diminished biodiversity and ability to sustain forest dependent wildlife (ibid.). Albeit, there is few data quantifying the impact of coca-driven deforestation on biodiversity.

Coca farmers exert further pressure on wildlife through hunting for food and economic purposes. In Bolivia drug trafficking planes were found to smuggle animals (Henkel, 1995). Robinson and Redford (1994) point out that even light hunting affects forest ecology and structure.

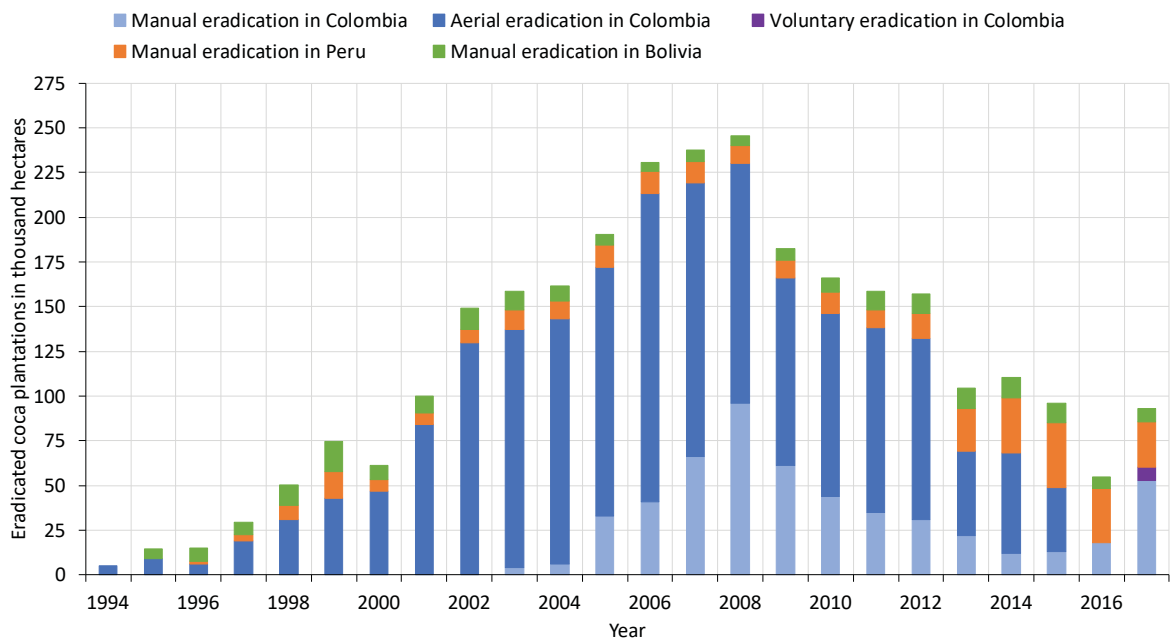
### **2.4.3 Coca eradication**

In 1994, Colombia started using aircrafts to eradicate coca plantations through spraying of glyphosate and adjuvants whose combined effects on humans and nature had not been adequately tested (Transnational Institute, 2003). Within 21 years up to two million hectares of coca were sprayed (this includes multi-time spraying of the same spot) (see figure 7) (Mejia, 2015). In 2015, the programme was suspended by a verdict of the Constitutional Court following a paper by the WHO proposing that glyphosate was probably carcinogenic (Brodzinsky, 2015). Until then, indiscriminate defoliant aspersion lead to (1) the displacement of thousands of peasants (CODHES, 2003; Rincón-Ruiz & Kallis, 2013), (2) boosted deforestation by expelling coca cultivation into indigenous reservations and nature reserves (Brodzinsky, 2015; Rincón-Ruiz et al., 2016), (3) caused miscarriages and dermatological and respiratory problems (Camacho & Mejia, 2015), and (4) contributed to lower citizen confidence in government institutions (Felbab-Brown, 2009; Navarrete-Frías & Veillete, 2005). Despite these myriad unintended consequences, the Colombian government — under pressure from the US administration — urges the Constitutional Court to rescind its 2015 ban (Norman, 2019).

Manual eradication does not bring about any of the abovementioned consequences apart from eliciting domestic migration and thus furthering the mobility of coca cultivation. However, due to land mines and belligerent groups defending coca fields, manual eradicators are working in perilous conditions resulting in frequent deaths (Gruenwald, 2015).

### **2.4.4 Water and soil contamination**

As chapter 2.4.1 showed, a big part of the area used to cultivate coca is wrested from the rainforest by burning existing trees and undergrowth. This technique fosters soil depletion by erosion which is further aggravated by farmers relinquishing traditional agricultural methods such as terraces (UNODC, 2006a). Consequently, coca farmers aiming for maximum yields, even on non-depleted soils, are utilising fertilisers and herbicides (EMCDDA, 2016). A UNODC (2006a) study concluded that in 2005 85 000 tons of fertilisers and 12 million litres of pesticides and herbicides have been applied on coca plantations. According to Brain and Solomon (2009) these are especially toxic for amphibians but do also affect fish and other wildlife (UNODC, 2006a).



**Figure 7.** Coca eradication in the three main producing countries, 1994–2017. Own creation based on data by UNODC (2019), US Department of State (2019).

The subsequent extraction of cocaine from dried coca leaves requires huge amounts of partly toxic chemicals. Amongst those are potassium permanganate, sulfuric acid, kerosene, gasoline or diesel and acetone (EMCDDA, 2016). Coca laboratories are often situated near plantations to avoid transporting huge volumes of leaf. There, the chemicals are usually spilled in a holding pond instead of being directly dumped in surrounding streams. Nonetheless, frequent heavy rainfalls quickly result in releasing the toxic substances into the environment, albeit diluted (UNODC, 2006a). These chemicals can lead to a change of pH and oxygen levels in the water, thereby threatening aquatic fauna and flora (UNODC, 2016).

Given the fact that between 2007 and 2016, global cocaine manufacture estimates amount to ca. 6000 tons it can be assumed that ‘millions of tonnes of hazardous waste resulting from cocaine production is released into the environment’ (EMCDDA, 2016, p. 104) by the broadly scattered coca leaf processing laboratories each year (Mejia, 2015). Yet, there is no data quantifying the hostile impact on ecosystems (EMCDDA, 2016; UNODC, 2006a, 2015).

After consumption cocaine metabolites (e.g. benzoylecgonine and cocaethylene from concurrent consumption with alcohol) are excreted through urine and feces and can impede human health and threaten aquafauna and -flora (EMCDDA, 2019; Zuccato & Castiglioni, 2009; Zuccato et al., 2008).

### 3 Research design

I designed this study as qualitative research within the ontology of critical realism. I acquired the data through semi-structured interviews of respondents in my social sphere. Those interviews were thematically analysed using the Integrated Behavioural Model. How the IBM is embedded into critical realism can be read in appendix A.1.

#### 3.1 Theoretical framework: Integrated Behavioural Model

In this section I will present the theoretical assumptions and underpinnings of the study. The social-psychological Integrated Behavioural Model will be introduced and explained

##### 3.1.1 Emergence

The *Integrated Behavioural Model* is an advancement of the *Theory of Reasoned Action* (TRA) and the *Theory of Planned Behaviour* (TPB) (Glanz, Rimer, & Viswanath, 2008). These models from behavioural science were developed to predict behaviour through ascertainable psychosocial factors and to serve as a framework to develop suitable means of behavioural interventions. A fundamental assumption of the IBM and its predecessor-theories is the rational individual 'who consider[s] the implications of their actions before they engage or not engage in a behaviour' (Ajzen and Fishbein, 1980, p. 5). The actor 'make[s] systematic use of information available to them' and is not 'controlled by unconscious motives or overpowering desires', leading to a behaviour neither 'capricious [n]or thoughtless' (ibid.). The models assume that an individual's intention towards a behaviour is the strongest indicator of said behaviour's actual execution. The behavioural intention in turn is determined by the attitude towards the behaviour, perceived social norm and personal agency (only TPB and IBM) (Fishbein & Ajzen, 1975), regardless whether the foundational behavioural, normative or control beliefs (only TPB and IBM) are rationally, emotionally or logically motivated (Fishbein, 2007). The IBM is a combination of the TPB and the conceptual framework from Jaccard, Dodge, and Dittus (2002) postulating that, next to intention, behaviour is influenced by (1) the salience of the behaviour (Becker, 1974), (2) a person's behavioural habit, (3) external constraints making the behaviour difficult or impossible (Triandis, 1979), and (4) the person's knowledge and skill to perform the behaviour.

The models are the result of quantitative studies and have been shown to explain a large proportion of the variance of behavioural intention by hundreds of studies (Albarracín, Johnson, Fishbein, &

Muellerleile, 2001; Albarracín, Kumkale, & Johnson, 2004; Armitage & Conner, 2001; Downs & Hausenblas, 2005; Durantini, 2006; Hardeman et al., 2002; Sheeran & Taylor, 1999). However, it is possible to use any of the models as a heuristic framework to guide questions in qualitative research (Ajzen, 2019b). Most of the over 2000 studies using these models (Ajzen, 2019a) are investigating health behaviour (Glanz et al., 2008) including drug use, yet there are also studies applying it to environmental behaviour. For examples see appendix A.2.

The use of the IBM in this study is appropriate, since I assume that casual cocaine users' cocaine consumption is neither nondeliberate nor the consequence of an incognizant motive but rather the result of a rational (in the sense of conscient) assessment.

### **3.1.2 Structure**

The IBM demands the definition of a target behaviour. Amongst the sampling, taking cocaine is a normalised behaviour. The target behaviour was consequently chosen to be 'saying no to cocaine' and the interview guide structured accordingly.

Each of the three constructs to predict behavioural intention (attitude towards the behaviour, perceived norm and personal agency) are the combination of two direct measures, which are again determined by one or two indirect measures. These measures are influenced by the individual's specific dispositions, such as global attitudes and personality traits, by their demographic properties, e.g. age and education, and by the quality and quantity of information available to them (see figure 8).

The attitude towards a behaviour is divided into experiential (i.e. the emotional association with the behaviour; e.g. 'I find taking (less) cocaine pleasant/unpleasant.') and instrumental attitude ('I find taking (less) cocaine good/bad to achieve X.'). which themselves are determined by the *emotional behavioural belief* or the *instrumental behavioural belief* regarding a behavioural outcome combined with an evaluation, respectively.

Perceived norm describes the individual's perception of social norms in regard to the behaviour. On the one hand, it is determined by the *normative belief* about the performance of the behaviour ('I believe person X is taking (less) cocaine.') and the individual's identification with said person, which together results in the *perceived descriptive norm*. On the other hand, the normative belief about the approval of the behaviour ('I believe person X approves of taking (less) cocaine.') and the individual's motivation to comply with them shapes the *perceived injunctive norm*.

One part of personal agency measure is the individual's 'degree of confidence in the ability to perform the behavior' (Glanz et al., 2008) while facing facilitating or constraining conditions ('*self-efficacy*': 'I think I am able to take (less) cocaine in the future.'). The other part is the perceived control over the behaviour ('Taking (less) cocaine is up to me.').

### **3.1.3 Critique**

The TPB has been criticised as ‘dehumanising’ due to its alleged neglect of moral considerations (Kaiser, Hübner, & Bogner, 2005). This is particularly relevant in matters of sustainability such as the taking of cocaine, where one’s own interest is at odds with others’ interests (cf. Hardin (1968)). However, only a few studies managed to show an improvement in predictive ability by adding an explicit measure for moral perceptions (Heath & Gifford, 2002). In contrast, e.g. Kaiser and Scheuthle (2003) and Bamberg and Schmidt (2003) evinced that moral norms are sufficiently included in an individual’s behavioural attitude and can thus be considered distal variables.

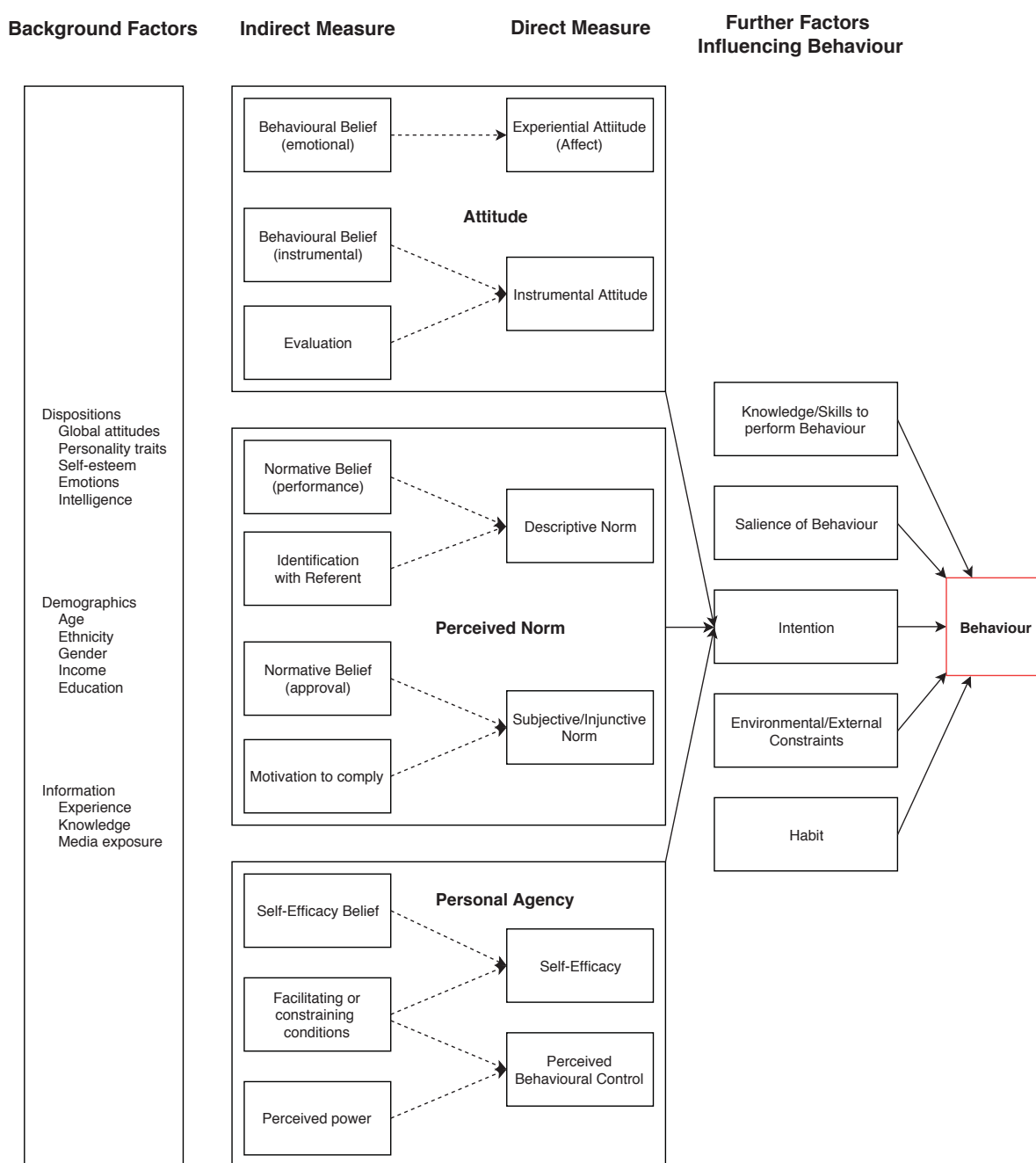
### **3.1.4 Environmentally focused Theory of Planned Behaviour**

Donald, Cooper, and Conchie (2014) proposed an extended TPB which defines moral norm and environmental concern as additional predictors next to attitude, perceived norm and personal agency. Next to intention, they also define habit as a behavioural predictor. Since I omitted habit as behavioural predictor and follow the finding of several authors, that moral considerations are sufficiently represented in a person’s attitude, I decide against using Donald et al.’s (2014) model.

Nadlifatin, Lin, Rachmaniati, Persada, and Razif (2016) hypothesised an extended TRA, called *Pro-environmental Reasoned Action* (PERA) model which was later developed to the *Pro-environmental Planned Behaviour* (PEPB) model (Lin, Nadlifatin, Amna, Persada, & Razif, 2017; Mufidah et al., 2018). It includes perceived authority support (PAS) and perceived environmental concern (PEC) as distal variables to attitude and perceived norm. I decided against using PEPB because of its inclusion of perceived authority support and exclusion of any background or further factors predicting behaviour. Due to the co-consumption of cocaine with other drugs, I assumed that the salience of the behaviour would be a good factor to include into the model. Furthermore, in comparison to the IBM the PEPB has been used only seldom.

## **3.2 Methodology**

I chose a qualitative approach for this study. This seemed more adequate since it allows for more interpretative openness than following the IBM’s rigid structure which precipitates neglect of unique individual inducements (Bryman, 2016; Fishbein, 2000). It was also necessary, first, since the IBM’s usual mixed-methods approach is too time-consuming. And second, because it consists of a qualitative elicitation process to examine possible behavioural outcomes, referents and control conditions. This process assumes certainty about the homogeneity of the population (Glanz et al., 2008). Due to this study’s sensitive subject, which — within the given time — did not allow structured sampling, this was not possible.



**Figure 8.** Schema of the IBM. Own creation based on Glanz, Rimer, and Viswanath (2008).

Consequently, the IBM is used as a deductive framework to structure data acquisition and to enquire the model's particular target constructs. In the thematic analysis, those serve as the basis to build an understanding of the probands' behaviour. However, some behaviours might not be explained by the IBM's theoretical assumptions. Hence, the interviewee is given sufficient space to communicate their own world view, experiences and interpretations in regard to cocaine consumption. Furthermore, additional topics are being addressed whose relation to cocaine consumption might not be immediately

obvious to the interviewee. This process thus allows for creative interpretations, new discoveries and explanatory hypotheses (Bryman, 2016). As a result, novel aspects and distal variables that are relevant to the development of a behavioural intervention, can be revealed in order to put them into relation to the IBM and speak back to theory.

### **3.2.1 Sampling**

Although cocaine consumption as such is not illegal in Germany, trading and possessing it is ('Gesetz über den Verkehr mit Betäubungsmitteln (Betäubungsmittelgesetz - BtMG) [Controlled Substances Act]', 1981). It is therefore a sensitive topic, which is not openly communicated to persons to whom the consumer does not have a confiding relationship. Therefore, I chose respondents using a combination of convenience and snowball sampling. In the end, ten persons were interviewed in total. All of them are German and are living in Berlin.

The interviewees were not sampled to statistically represent the population of cocaine consumers. This would have afforded a pre-study to compile a full overview of cocaine users in Berlin, find consumers and gain their trust to speak openly about drugs. The sampling might thus limit the representativeness of this study, nonetheless, given the limited time, ten probands are assumed an unexpectedly high number for this topic, thereby lending some significance to this paper.

Before the interview was conducted, each respondent was asked to fill out a *Mini International Neuropsychiatric Interview* (M.I.N.I.) form based on the German version of the *Diagnostic and Statistical Manual of Mental Disorders* (cf. American Psychiatric Association (1994)). That way I could ensure to exclude cocaine addicts, whose taking of cocaine does not fulfill the IBM's behavioural criteria of being 'rational' and not being governed by 'overpowering desires'. All respondents were shown not to be addicted.

The respondents were assured that their data will be anonymously analysed and presented. They will be referred to as e.g. R3 for respondent 3. Table 2 shows a summary of the respondents' demographics.

#### ***Personal bounds between researcher and interviewees***

I knew most of the respondents before I interviewed them. This study would otherwise not have been possible in the limited time available. However, there are also downsides to this sampling. Using R10's term 'bubble' to describe his circle of friends and acquaintances, nine of ten respondents are part of my 'bubble'. Figure 9 gives a short overview into which respondents know each other, and amongst whom cocaine has been a topic before I even thought about this study. Although I did not disclose any specific information about this thesis' topic, some of them might have guessed it before the interview. This could have allowed them to prepare for the interview, so that their responses might be distorted.



**Table 2.** Demographics and consumption parameters of the respondents (cf. figure 2)

Nr.	Age	Gender	Educational attainment	Monthly cocaine consumption [occasions]	Intented future consumption
1	27	F	Master eq.	1.5	none at all
2	29	M	Bachelor	0.66	less
3	29	F	Master eq.	1	similar
4	30	M	Master	3	similar
5	28	F	Doctorate	0.5	less
6	27	M	Bachelor	0.5	less
7	30	M	Master	2	similar
8	38	M	Intermediate level	0.5	less
9	34	M	Intermediate level	0.5	no intention
10	27	M	Master	0.33	less

Yet, since I assume to have a trustful relationship with almost all of the respondents, I think the chances for that happening are limited.

Although I know the probands, I can't guarantee that they did not bluntly lie to cover cravings, attitudes or an inability to withstand, they might be embarrassed about or have different reasons to conceal.

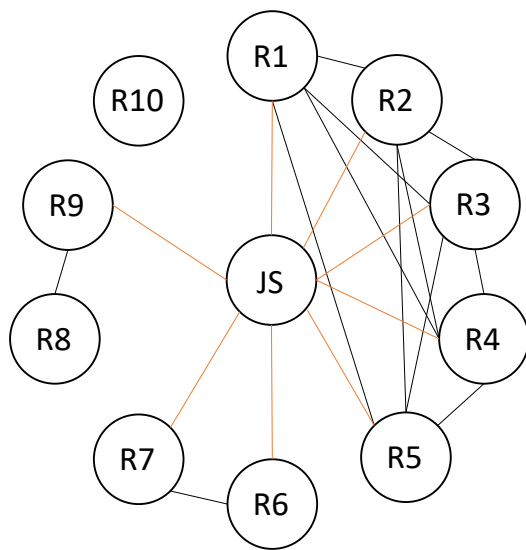
During the writing of this thesis, I realised that I required further information about some factors. Knowing most respondents made it easier to do that. However, since the interview might have started reflection processes, a person's attitudes had probably changed at the time I reached out to them again. I did not come about any particularly inconsistent or contradictory statements, yet this shows clearly that the results represent but a snapshot of the probands' minds.

### ***Transferring results***

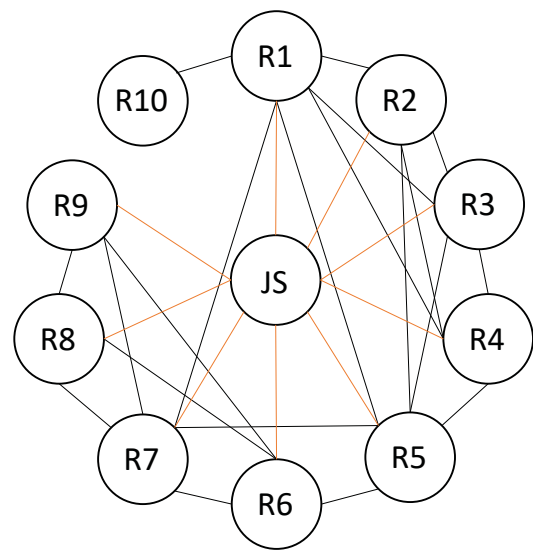
It can be concluded that the sampling is not only geographically but also temporally and culturally limited, which makes it hard to adapt the conclusions to casual cocaine consumers from e.g. London or Stockholm or even another socioeconomic milieu of Berlin than mine. Where cocaine consumption is less openly talked about, where the general atmosphere is less environmentally progressive or where casual cocaine consumers are not those end-twens who want to party, there the IBM might show different results.

### ***3.2.2 Semistructured interview***

The interviews were semi-structured. The structure was provided by the elements of the IBM. The interviews were conducted in German and divided into three parts: an introductory part about the



(a) Participants who talked about cocaine with each other before the start of the study and not related to the study.



(b) Participants who had at least one conversation with each other before the start of the study.

**Figure 9.** Network showing interrelations between study participants and researcher (JS).

respondent's drug habits in general, the main part about the interviewee's cocaine habits and a final part about the interviewee's perspective on sustainability.

I began the interviews as an open conversation about drugs in general with the aim to make the respondent feel at ease to share sensitive information. It was followed by questions about the interviewee's drug experiences, what they know about drugs, which drug-related information they are seeking, whether they are reflecting their consumption and how they perceive the media coverage in regard to drugs. Thereby I could get an idea about the respondent's approach to taking drugs and what they deem important in regard to drugs: e.g. the legal situation, health concerns, financial aspects or environmental concerns. This can be contrasted to the interviewee's perception of the drug-related media coverage.

The main part of the interview was guided by the IBM and aimed at revealing the psychosocial aspects linked to not taking cocaine. I designed the questions so that the interviewee was encouraged to elaborate about the peculiarities of the social event of taking cocaine. I explicitly asked for (1) *emotional and instrumental behavioural beliefs* (EBB/IBB), (2) *normative beliefs* in regard to performance (DN) and approval (SN), (3) *self-efficacy* (SE), (4) *facilitating/constraining conditions* (FCC) and (5) *perceived behavioural control* (PBC), and (6) *intended consumption* (IC). I was further interested in what the interviewee knows about the cocaine economy (background measure K), whether and how they reflect their consumption, and if they deem themselves responsible for the negative implications of cocaine production (background measure RCC).

I did not explicitly ask for the indirect measures *motivation to comply* and *identification with referent* since they could be derived from the respondents' consumption stories and their statements regarding descriptive and subjective norm.

I did not have to explicitly ask for *Self-efficacy belief* and *perceived power*, since all respondents mentioned whether the impact of a facilitating or constraining condition is particularly strong or weak and if it were easy or hard for them to overcome its influence.

Subsequently, the respondent was asked about their perspective on climate change, environmental issues and matters of social responsibility. The aim of this part was to find out whom the interviewee deems responsible for tackling said issues and whether and how they themselves take responsibility e.g. through lifestyle adjustments or consumption changes. Using this information I created the background measure *attitude towards responsible consumption in general* (RCG). To estimate the influence of factual information on an individual's behaviour, it was important to find out what caused them to take responsibility in actual cases.

One test interview was conducted with a cannabis consumer since I did not want to lose one precious interviewee on a test case. Yet, the insights gained from this could not be fully transferred to the 'real' interviews.

### **3.2.3 Data analysis**

All probands acceded to a digital recording of the interview using a smartphone. I transcribed the interviews using NVivo 12. Since the data analysis is not based upon the individual language a respondent uses, the spoken word was smoothed out to eliminate stammering, 'ehm's and create complete sentences. Nothing was paraphrased but sometimes the word order was changed to improve readability. Direct quotes in the results were translated by myself to the best of my knowledge.

A list of codes including a hierarchical code-tree derived from IBM's constructs was created and every interview thoroughly read and coded in relation to the model. New themes like e.g. the respondent's conscience that emerged during coding were assigned to newly created codes.

While analysing the respondents' RCG, I realised that some respondents appear in a different light in the interviews than how I know them. Of many of them I assume to know their moral standing towards consumption, their mindset towards sustainability and their consumption habits quite well, yet I could not use this information. I tried to prevent distortions of the results by using a very broad distinction for RCG.

## 4 Results

I understand that the milieu this thesis explores, is unknown to most of the readers. The following paragraphs shall thus provide a general understanding of the interviewees' relation to drugs.

All respondents characterise themselves as experienced drug users. Amongst the drugs they are regularly consuming (including drugs they might only use once a year) are alcohol, amphetamine ('speed'), cannabis, ketamine, cocaine, LSD, MDMA ('ecstasy'), nicotine and magic mushrooms. Individual variations and preferences are described as the result of trial and weighing of effects. R7, for example, explained, that he doesn't much like the effects of psychoactive drugs and thus limits his consumption to alcohol, cocaine and MDMA. And R6 stated that, after years of regular use of MDMA, he doesn't like it that much any more and is thus only consuming alcohol, cannabis, cocaine and speed nowadays.

The respondents are taking cocaine between 4 (R10) and 36 times (R4) a year. It is always consumed in a setting with friends, either before or during clubbing or while hanging out together. It always involves the preceding or parallel consumption of at least alcohol, in some cases also cannabis (R6, R10), ketamine (R1, R3, R4, R5) or speed (R1). All respondents know about the medical and addictive risks of drug consumption and are consciously taking those risks. They are tracking their consumption and lower it, when they realise they might have overreached (e.g. R4, R6 and R7 reported to have done recently).

Given the ease with which the interviewees speak about drugs, it seems drug consumption is normal within their community. R3 has the 'impression, that the consumption behaviour in [her] community is seen as more and more normal and common. The consumer is described as a normal member of society'. R10 mentions: 'Look at Berlin: everyone takes drugs. Maybe that's only my bubble though'.

In the following section the interviewees' descriptions are attributed to the appropriate construct and dissected. Information in parentheses indicate from whom a specific statement comes (e.g. R3) and which intra-construct theme I allocated it to (e.g. IBB4). The themes are compiled in figure 10. Background factors and further factors are explained, and put into relation to not taking cocaine.

### 4.1 Attitude

#### 4.1.1 *Instrumental Attitude*

The respondents' reasons for cocaine consumption are manifold (see appendix A.4 for details). This would consequently be something they might miss, when they take less cocaine. However, only R3 and

R6 explicitly mentioned missing the positively-connoted 'loss of control' (IBB6) as concrete consequence of abdicating cocaine. No further negative instrumental behavioural beliefs were mentioned.

To the contrary, the respondents named five positive consequences of taking less cocaine. In accordance to the topics of the interviewee's personal reflections (see 4 and 4.4.1), health benefits (IBB2) and a lower risk of addiction (IBB3) were often identified outcomes (R1, R5, R6, R9, R10 and R1, R6, resp.). R4, R6 and R7 expected to have more disposable income (IBB4), if they lowered their cocaine consumption. More (R7) and better (R4) sleep was also of concern (IBB5). R1 named 'less support for drug wars in South America' as a consequence (IBB1). R2 said 'the whole terrible rat's tail of cocaine, from production to consumption is bad for humans and environment' (IBB), and wishes to reduce 'everything that's linked to cocaine production' by taking less cocaine. R5 thinks taking less cocaine would result in less negative consequences of the drug's 'logistics' (IBB1). R10 said taking less cocaine reduces his part in 'strengthen[ing the] cartels and the hardship' in South America (IBB1). R3 believes that not being 'complicit in an amoral activity' would be an outcome of saying no to cocaine (IBB1).

#### **4.1.2 Experiential Attitude**

The probands have positive and negative experiential beliefs. R1 said she gets a bad conscience from taking cocaine, so taking less would relieve her conscience (EBB1). R4 mentions the same (EBB1), yet is afraid to 'miss out on something' (i.e. fear of missing out (FOMO); EBB3). Both explicitly mention a positive experiential attitude towards taking less cocaine EA1). R5 sees taking no cocaine as 'between positive and neutral' EA1–2). R10 finds it a pity EA3), that he would not be able to go 'clubbing with [his] group in the way, [he] used to' (EBB2). Some respondents fear not to be able to 'partake in this group activity' anymore (R5) (EBB2), not to 'feel this sense of togetherness' anymore (R6) (EBB2) or that 'social life might suffer a bit' and forsaking cocaine would 'probably shorten many evenings' (R7) (EBB2).

In the moment of taking cocaine, two respondents mentioned the fear of exclusion (R4, R5) (EBB3). For R10 the group creates an atmosphere, that would make him feel excluded, resulting in the fear of 'being the spoilsport' (EBB2). I got the impression that fears of exclusion were less emotionally connoted than a lower quality of social life.

## **4.2 Perceived Norm**

### **4.2.1 Descriptive Norm**

Within the setting and the company in which the interviewees are taking cocaine, it is a normalised behaviour, yet taking no cocaine is equally normal. All respondents report that it is normal that there are one or more who decline an offer to take cocaine, be it because 'they don't like cocaine or have other plans' (R3) or because 'one doesn't want to get wasted every time one goes clubbing' (R4). For details see appendix A.5.

### **4.2.2 Subjective Norm**

All respondents have declined offers to take cocaine from time to time. The subjective norm, namely whether the respondents think their peers would approve or disapprove of that behaviour, can in total be described as 'neutral' (R2, R6 and R7). The questions for that subject were on the one hand enquiring about the reaction to saying no in the moment and on the other hand to the reaction to the long-term intention not to take cocaine anymore. For details see appendix A.6.

## **4.3 Personal Agency**

### **4.3.1 Self-Efficacy**

Eight probands answered with a clear yes to the question whether they deem themselves 'able to take (less) cocaine in the future' (SE1). R1 said she always takes cocaine with other drugs which limits her ability to make a conscious decision when it is being offered to her. She still thinks she will be able to lower her consumption (SE2). R10 rather agreed to said question, yet he 'celebrates the moment [of taking cocaine] so much, it's like a little present that [he] gives [himself]', which constrains his self-efficacy a bit (SE2).

### **4.3.2 Facilitating or constraining conditions**

Further conditions that can facilitate or impede taking less cocaine are the number of occasions (e.g. clubbing) to take cocaine (R1, R2) (FCC4), the availability of cocaine (R3, R5) (FCC5), the number of people in the social environment taking cocaine (R6) (FCC6) and group dynamics (R1, R2, R3, R4) (FCC6). For R5, lowering the consumption would probably be easier if it had been mutually decided (FCC6). R9 thinks a positive reaction of his friends to saying no could probably facilitate the behaviour (FCC9). R10 says, if his partner also took cocaine, it would be 'really hard to take one step back from it' (FCC6).

R2, R3, R6 and R10 think more information about the NSEAIC would facilitate a reduction of consumption by creating a 'bad conscience' (R6) (FCC1). R2 identifies more information as the most influential factor. R6 described it as probably influential and thinks it would only help him to take less cocaine, it would not lead him to abdicate cocaine entirely. R3 and R10 are specifically mentioning the Netflix series 'Narcos'. R3 thinks it brought the topic into the general discourse. R3 said if the topic 'became even more present' everyone felt some 'remorse, and it would be easier to mutually decide against [taking cocaine]'. R10 described that he felt said remorse while watching Narcos which lead to his decision to lessen his consumption.

The legal situation is considered ambivalently: R7 thinks stricter laws, i.e. more severe sentences could probably encourage him to take more cocaine since that would make cocaine consumption 'more edgy' (R7), whereas R6 thinks stricter laws would have the opposite effect (FCC7). Yet, he also sees that

the allure of doing something illegal together in a group might increase the appeal of cocaine. R4 finds 'this secret of which only the group knows, somehow has an appeal to [him]'.

R7 thinks he would lower his consumption if he read 'another 15 reports about the rat poison that's supposed to be in it' (FCC2) or if the price were to rise (FCC8). For R9 the price is not a reason yet he thinks if he had more money it would be harder for him to lower his consumption (FCC8).

#### ***4.3.3 Perceived Behavioural Control***

Despite the variety of influential factors, nine respondents perceive the control over the performance to be fully in their hands (PBC1). R4 rather agreed, adding that despite opposite ambitions it happened sometimes that he let himself get persuaded to take cocaine (PBC2).

#### **4.4 Further Factors**

Abovementioned aspects play into an individual's intention to take less cocaine. Further factors that are playing a role in taking no cocaine are consumption habits, the salience of saying no, any external conditions restricting lower consumption, and the appropriate knowledge and skill to not take cocaine. The latter factor was not explicitly enquired about since it can be assumed that every respondent knows how to say no to cocaine.

##### ***4.4.1 Salience of not taking cocaine***

Taking less cocaine is salient, if it is 'prominent, conspicuous, or otherwise noticeable' (Baumeister and Vohs, 2007) to the respondent. Salience here thus 'refers to a psychological state in which a person is consciously thinking' (Baumeister and Vohs, 2007) about saying no to cocaine. It has to be distinguished between the salience in the moment of the decision and the general salience. The former can be deduced from the way the decision to use cocaine is taken and the latter is well indicated by a consumer's reflection about their consumption.

##### ***Salience in the moment of the decision***

Only R1 always impulsively takes cocaine and hence does not consciously think about it while doing it. R3 and R9 sometimes act impulsively, yet taking cocaine for them also sometimes is the result of a plan or a reasoned decision. In the moment of being offered cocaine it can consequently be assumed that saying no to cocaine is never salient to R1 and sometimes not salient to R3 and R9. For details see appendix A.7

### ***General salience***

Reflection of one's consumption behaviour speaks for its salience in general. R1, R2, R3, R4, R5, R6, R7 and R10 (SoB2) reflect their cocaine consumption, the others don't. Major topics are personal health and addiction risks (R1, R2, R4, R6, R7). Yet, R1, R2, R3 and R10 also think about other consequences of cocaine consumption. R2 and R10 named specific cues that started this thought process: listening to a radio interview with the Chief of Metropolitan Police in London (cf. Siddique (2018)) and watching *Narcos*, respectively. It can be concluded that taking less cocaine as a general behaviour is salient for all respondents but R8 (SoB1) and R9 (SoB3).

#### ***4.4.2 The habit of not taking cocaine***

Not taking cocaine is a reported behaviour of all respondents. However, declining offers from time to time does not make this behaviour a habit. Indeed, by seeking casual consumers my sampling a priori ruled out persons with the habit to say no to cocaine. As I define it here, someone having the habit of not taking cocaine, never takes cocaine when it is offered to them. For details about individual specificities see appendix A.8.

#### ***4.4.3 Intention to take no cocaine***

The respondents were asked whether they plan to consume less, similar or more cocaine in the future. R1 does not want to take any cocaine (IC1), R2, R5, R6, R8 and R10 have the intention to consume less cocaine (IC2), R3, R4 and R7 don't plan to change their consumption (IC3) and R9 doesn't have any intention in regard to his prospected consumption (IC4). R1, R2, R5 and R10 said they want to take no or less cocaine because of the negative implications for society and environment. R6 intends to take less to lower his risk of getting addicted and R8 said he 'now is of an age where [he] experienced so much', that he just doesn't crave it so much anymore.

#### ***4.4.4 External constraints limiting a lowering of the consumption***

The prohibition of cocaine is an external constraint to taking cocaine. Additional constraints are a person's budget and the market availability. Factors restricting someone from taking no cocaine could be peers coercing one to consume and a cocaine addiction. According to the respondents, the former does not appear and the latter could be ruled out through the addiction form (see 3.2.1).



## **4.5 Background Factors**

### **4.5.1 Knowledge about cocaine**

All respondents know about the deleterious effects of cocaine and its addictive potential (K3 & K4). However, the knowledge about the circumstances of production and distribution is varied and mostly vague. R7 suspects there is blood on cocaine (K1), R8 and R9 think the farmers producing it are working under poor conditions. R1, R2 and R10 feel strong about the negative social consequences, using phrases like: 'there's blood on it' (R1), 'cartels do a lot of fucked up shit' and there are 'inhumane conditions within [their] power hierarchies' (R1) (K1), 'the whole terrible rat's tail of cocaine, from production to consumption is bad for humans' (R2) (K1), and 'it strengthens cartels and the hardship' in South America (R10) (K1).

Some respondents' knowledge is slightly more concrete. R3 speaks of violence, exploitation and crime in production and distribution (K1). R4 knows 'that the cartels make a lot of dough with it and people are murdered for it and that one finances certain other things with it, which one doesn't have on the radar at all' (K1). According to R5, cocaine is 'linked to a lot of crime' and there are 'huge business structures, that arrange cocaine cultivation, production, distribution'. This creates 'parallel structures, meaning criminal structures [...] parallel to the juridical order' which fosters 'vigilantism, legal insecurity [and] corruption' (K1). R6 mentioned the 'infiltration of government institutions by cartels' and rising corruption (K1).

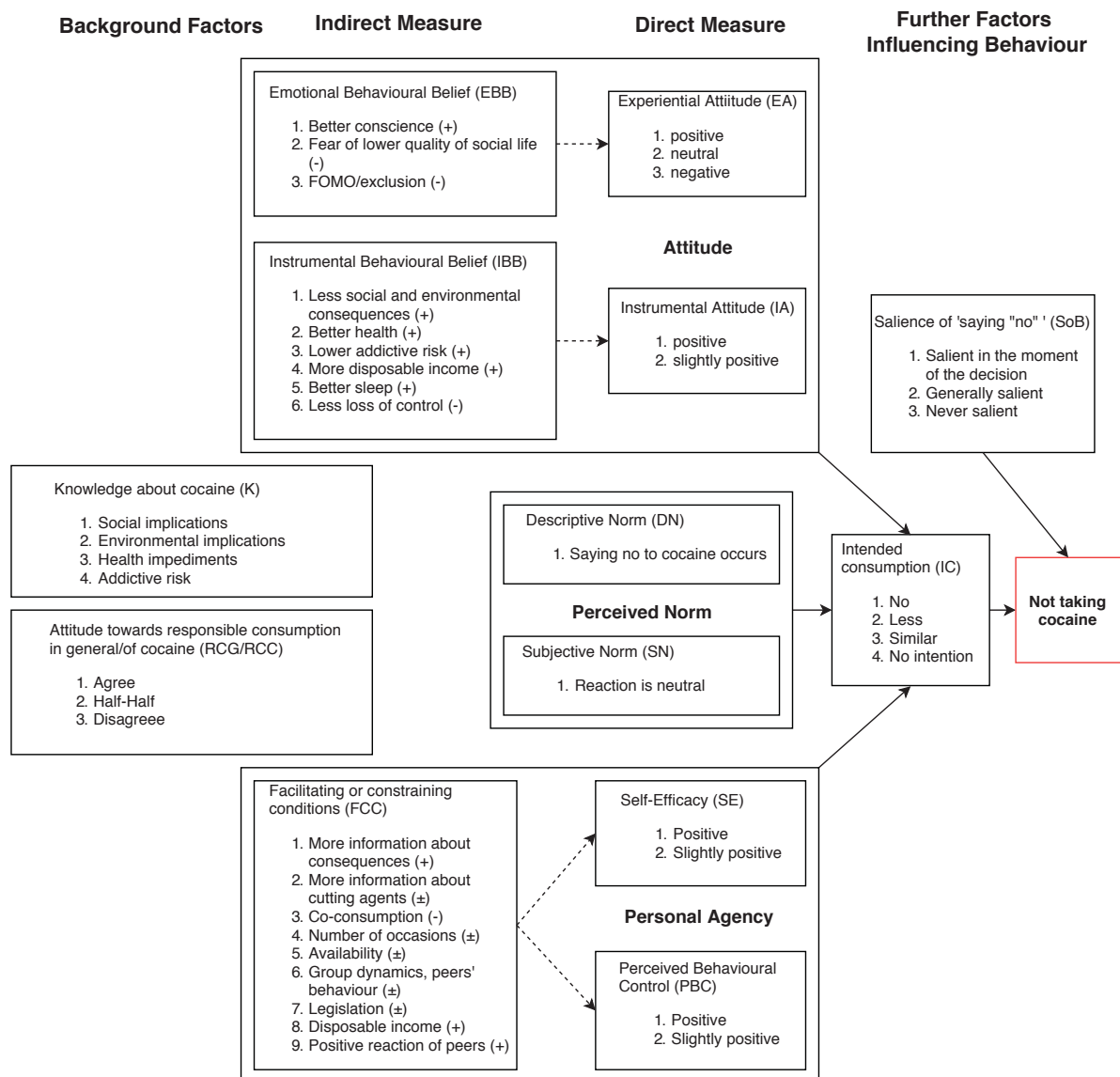
In contrast to the social impacts of cocaine, environmental ones are less known. R1 thinks 'coca plantations might oust more useful crops or rainforest' (K2). According to R4 rainforests are 'probably logged off' and the production is 'certainly a bit environmentally harmful' (K2). Cocaine is bad for the environment, R2 is certain, because 'the plantations necessitate deforestation [and] possibly herbicide usage' and because the use of chemicals in cocaine production is unsupervised (K2). According to R6, cocaine production in jungle labs requires 'strong chemicals [which] get into the environment and groundwater' (K2). He is also aware of the glyphosate-spraying to eradicate coca plantations.

### **4.5.2 Attitude towards responsible consumption**

All probands agreed that climate change exists and that there are further negative environmental problems linked to modern civilisation. They are of the opinion that these issues have to be tackled, yet there are different opinions about who should be responsible for that. Most agree that social and environmental issues can only be overcome by a combination of structural/political alterations and individual efforts. In the interviews, the focus in regard to individual efforts laid on environmentally and socially conscious (or responsible) consumption.

R8 deems himself powerless, resulting in the government as sole bearer of responsibility (RCG3). R10 agrees, saying '[he] understands the impact [of buying organic], but [he] doesn't believe in it' and thinks

he fulfills his responsibility by voting and ‘spending the whole day working on a solution to foster sustainability’ (he writes a dissertation about biodegradable tyres) (RCG3). However, he shows responsible behaviour in particular cases as he e.g. omits buying avocados due to their negative impacts. R7 thinks individuals do have responsibility, yet deems their commitment as relatively futile in comparison to political changes (RCG2). R3 sees her own responsibility as a consumer but believes ‘that politics pointing the way ahead has a stronger impact’ (RCG2). R6 and R9 partly see themselves responsible and show some indications for it (RCG2), whereas R1, R2, R4 and R5 go the furthest in order to minimise the strain of their consumption (RCG1). For details about the respondents’ responsible consumption see appendix A.9.



**Figure 10.** Themes appearing in the interviewee’s responses attributed to the IBM’s constructs.

#### 4.6 Integrated Behavioural Model for the taking of less cocaine

Figure 10 aims to answer research question one and shows a compilation of all themes appearing in the interviewee's responses. The diagram follows the structure of the IBM as seen in figure 8, yet does not show measures that were not enquired and further factors that were not shown to influence cocaine consumption. The (-) or (+) behind a theme indicate in which way it can influence intended consumption. ( $\pm$ ) shows that the associated condition was said to be able to influence intention in both ways.

Signifying the highest variance in responses, the respondent's attitude seems to influence their intended consumption the most. Following the evaluation of the EBBs, the EA ranges from negative to positive. In the IA, the negative IBBs do not seem to have such a big impact, since instrumental attitude is always positive.

The respondents' perceived norm is unambiguous: all of them have observed peers declining an offer to take cocaine from time to time and the suspected and experienced reaction to declining an offer is described as neutral by all respondents. It can thus be assumed to have only very little influence on the intended consumption.

Yet, group dynamics are the most often named facilitating or constraining condition in saying no to cocaine. This will be discussed in chapter 5.2. The FCCs range from negative to positive, however, every proband reported confidence in the ability to take no cocaine (SE). The positively perceived behavioural control shows that the respondents deem themselves in control over any facilitating or constraining condition.

According to the respondents, behavioural intention relates to the overall consumption in the near future. For those who want to lower their consumption, it is the overarching plan which they have to keep in mind every time an occasion to take cocaine arises.

Next to the intended consumption, only the salience of the behaviour was shown to have a possible impact amongst the IBM's 'further factors'. To take no cocaine, it is important that saying no is a salient behaviour. Behavioural habit could be ruled out by the sampling. External constraints hindering saying no to cocaine were ruled out by the sampling and the interviewees' assurance that they are never coerced to consume. Knowledge to say no can be deemed universal.

## 5 Discussion

I created table 3 to analyse patterns within the respondents' behaviour. It shows figure 10 broken down by person. To identify measures influential to a respondent's behavioural intention, constructs with low or no variance were omitted (DN, SN, SE, PBC). The table shows the attitude towards responsible cocaine consumption (RCC) as background factor. Whether this is correct will be discussed in the following section.

**Table 3.** Interviewees' responses coded following the numbering in figure 10. Constructs with low or no variance are omitted. No entry means no statement from the respective person.

Nr.	Background Factors			Attitude				Personal Agency	Further Factors	
	K	RCG	RCC	EBB	EA	IBB	IA	FCC	IC	SoB
1	1,2,3,4	1	1	1	1	1,2,3	1	3,4,6	1	2
2	1,2,3,4	1	1	1	1	1	1	1,4,6	2	1,2
3	1,3,4	2	3	2	3	1,6	2	1,5,6	3	(1),2
4	1,2,3,4	1	1	1,3	1	1,4,5	1	6,7	3	1,2
5	1,3,4	1	1	(1),2,3	1-2	1,2	1	5,6	2	1
6	1,2,3,4	2	3	2	3	2,3,4	2	1,6,7	2	1,2
7	(1),3,4	2	3	2	3	4,5	1	2,7,8	3	1,2
8	3,4	3	3						2	1
9	3,4	2	3		3	2	1	9	4	(1),3
10	1,3,4	3	1	1,2,3	3	1,2	1	1,6	2	1,2

### 5.1 The value of information

Research question two asks whether information about negative implications of cocaine can foster a change of intended consumption. Whether a respondent has this information is indicated by a one (social implications of cocaine) or a two (environmental implications) in the K-column. R7 says he doesn't know how bad cocaine consumption is exactly, thinking if he eats 'three avocados, [he] probably has the same footprint in the end'. R8 does not think he has any responsibility as a consumer. R9 doesn't know about negative implications. Hence, they will be not be discussed in the following section.

As presented in 4.5.1, knowledge about cocaine's negative impacts is limited amongst the interviewees, whereas knowledge about the social implications of cocaine is more prevalent than knowledge about the environmental ones. There is no one who only knows about the environmental but not about the social ramifications. The four interviewees who know about both, did not make a distinction between the two. Thus, I will make no distinction in the following discussion either.

Naturally, it is only those respondents who know about the negative implications, who think taking less cocaine would lead to less negative implications (those having a one in the IBB-column). Amongst those five, it is only R3 who does not want to lower her consumption. She does not feel any moral obligation to lower her consumption (see RCC-column; see 4.5.2). It is of course necessary to know about any consequences one tries to forestall to develop the intention to do so in the first place. Yet, information alone is not sufficient to change one's behaviour.

R1 is a good example therefore: she has the necessary knowledge, sees less negative consequences as a behavioural outcome and has the intention to take absolutely no cocaine. Still, she takes offers to take cocaine more often than not, explaining it with co-consumption, saying taking cocaine 'usually happens in a context in which [she] doesn't say "no" too much anymore' but rather decides impulsively.

### ***5.1.1 Influence of information on respondents' behaviour***

In such a case it could be helpful to increase the salience of the behaviour and the related consequences by more and more frequent information. This is something also suggested by R7: 'a lot helps a lot. I think truths have to be repeated for humans to realise them'. He uses the example of mass husbandry, where watching one video about it didn't change his behaviour, 'but when one gets confronted with it over and over again, one reflects more and more and then one reaches a point [...] where one actively engages with the topic. [He] thinks this [is] a slow [...] iterative process'. R5 also uses the term 'confrontation': 'There are so many reports where one is being told about [husbandry] over and over again. And there are documentations about plastic in the oceans again and again and then you can't help but try to reduce it. When you're confronted with it, then you see your responsibility'. R2 emphasises the iterative process: 'I think I can't pin [the begin of my responsible food consumption] to one single event. The knowledge about social and environmental impacts [...] grew and I engaged more with it [...]. Over years a slow process started with growing knowledge [...]'. R6 explains his change to a vegetarian diet similarly: he can't remember one trigger event, but 'of course more information' is an influencing factor. 'The thing is simply, [...] one has heard something once and then one starts engaging and further informing oneself [...] and then one slowly tries to forsake that bad habit'. In regard to cocaine he says, 'the more you engage with those questions and the more knowledge you get from verified sources, [...] that has of course significant impact on your consumption patterns, [...] be it by shifting to different drugs or by strongly reducing your cocaine consumption'.

R2, R5, R6 and R7 changed their diet after digesting sufficient information regarding husbandry and see that as an act of responsible consumption. R1, R3 and R10 mentioned that reading an article about

the negative ecological and social impacts of avocado agriculture in Germany's biggest weekly newspaper (cf. Raether (2016)) lead them to change their avocado consumption. For R1 this might not seem surprising, since she consumes responsibly out of 'ideological reasons' (R1). Yet, R3 and R10 both deem the consumption decision of the individual as having limited impact (see RCG-column) and still changed their behaviour towards having less negative impacts. In the case of R10, this also happened in regard to cocaine. Despite his generally adverse attitude towards responsible consumption, watching *Narcos* made him realise 'what an impact [cocaine] has, how much it really destroys them over there'. Knowing about the direct connection between him and criminal actors lead to him feeling responsible and planning to consume less: 'I buy cocaine from a dealer who buys it from a different dealer and that one is already part of the cartel [...], that's somehow a direct causality'.

Looking at the IBM's constructs reveals that IA is almost invariate but IBB seems to be a good indicator for the intention to lower consumption. But amongst those who reportedly base decisions on information and are having knowledge about the negative impacts of cocaine (R1, R2, R3, R5, R6, R10), R3 and R6 stick out: they don't intend to lower their consumption. Column EBB could give reason to speculate: R3 and R6 are not having a bad conscience when they take cocaine.

### **5.1.2 The question of conscience**

R2 said, 'it would help [him] the most to have more information about any additional consequences of cocaine' to lower his consumption. This fits to his telling, that he intends to take less cocaine since he listened to a radio interview (see 4.4.1). Yet, an analysis of his words can also lead to another conclusion. He said 'the main reason [to change my intention] was a [...] newspodcast, [...] which showed the relation [...] of cocaine with cartels and the bad consequences for many people. *I was aware of that before and I had the necessary knowledge to figure it out*, but [the Chief of Metropolitan Police in London] formulated one very clear sentence. [...]. She said that she finds it very appalling and repudiating, [that the 30–40 year olds' share of consumers grows], because it is especially this group who is very considerate and attentive and knows a lot of connections [...]. *I instantly felt addressed*. [...]. She is so right there and actually it is so wrong and at the same time so easy to take less'. He had all the necessary information and knowledge to realise the negative consequences of his deeds, yet he only started to think about and change his behaviour when the shock of recognising himself in the statements of a police chief hit him. According to him, this fueled his bad conscience. Consequently, it was an emotional event that triggered him to realise the moral dimension of taking cocaine and process the available information.

Looking at columns EBB and RCC shows that those who hope for a better conscience when lowering their cocaine consumption feel a responsibility to act accordingly. But as above paragraph shows: information is paramount to develop bad conscience in the first place. R6 thinks 'that's similar to flying. Despite [information campaigns about societal consequences] one does it anyway, but with a bad conscience. *[They] could lead to doing it more seldom though*'. Knowledge and specific EBBs thus seem to

be better indicators of intention than EA. RCC on the other hand seems to be a consequence of having a bad conscience.

### ***Overlooking wrong***

R3 does not have a bad conscience for taking cocaine. And despite sufficient information, she does not feel the same responsibility for cocaine as she does e.g. for avocados. She thinks this is the case because taking cocaine requires to 'overcome the hurdle of illegality. The awareness of doing something wrong is already there and overcome. Then the [...] reason *why* [taking cocaine] is wrong does not influence [her] decision that much any more'. It seems that the fact that she is doing something illegal is more salient than the negative implications of cocaine.

When we grow up, we learn to understand what is allowed to do and what forbidden, and internalise the categories legal and illegal (Kohlberg, 1984). In the case of R3 the crass black and white distinction of legality overshadows the subtler, multifacetedly grey zones of irresponsible consumption. Thus, by 'overcoming the hurdle of illegality', the hurdle of consuming irresponsibly is automatically 'co-overcome'.

### ***Overcoming conscience***

R6 knows a lot about the cocaine business, but in the interview he did not acknowledge less negative consequences as an instrumental outcome of taking no cocaine (see IBB-column). According to the behavioural patterns observed in above paragraphs, that should relieve him from a bad conscience and felt obligation to consume responsibly which it seemingly does (see EBB-column).

In a subsequent enquiry, I asked how he justified taking cocaine while knowing about its negative implications and showing responsible behaviour in other consumption decisions. He 'definitely puts the satisfaction of basic needs — hunger, love, inebriety — first, before environment'. He brought forth the example of meat eating, which 'undermines [his] principles', yet when he's very hungry his 'main objective is to get food, then [he] also grabs a kebab once in a while. [...]. Actually [his] approach is not to forbid [himself] everything and live ascetically, but [he] tries to reduce as much as possible'.

His approach to responsible consumption allows him to excuse outbursts of need satisfaction in a reasoned way: it's against his principles which might create bad conscience, yet acting according to his principles would be worse (bad mood in the case of enduring hunger, not 'feeling this sense of togetherness' (R6) (see 4.1.2) in the case of declining cocaine). He overcomes bad conscience for consuming environmentally or socially irresponsibly by declaring it personally reasonable (this explains his RCC). But, as he says himself (see 5.1.2), more and more frequent information could increase his bad conscience, make it harder to overcome and thus lead to a reduction of cocaine.

### ***Offsetting conscience***

Of the seven probands knowing about the NSEAIC, R3, R4 and R6 are the ones having no intention to lower their consumption to lower its negative implications. R3 and R6 show a noticeable difference in IBM constructs in comparison to the four intending to lower their consumption (R1, R2, R5 and R10). Yet, what about R4?

In the interview, he said, he had no intention to take less cocaine. Yet, in a subsequent enquiry, he acknowledged that ‘when [he’s] consuming, [he] doesn’t think about [the negative implications of cocaine], this is somehow switched off. In most cases [he’s] also alcoholised, at least a bit, so [the NSEAIC] do not play a role [...] while [he’s] consuming. [He] can’t say why that’s the case, [he] just disregards it or refuses to acknowledge it. *Yet, the next day [...] [he] thinks about it and tries to reduce it*, but when [he] goes clubbing again, [he] quickly forgets about it’. It seems, comparably to R1 (see 5.1), saying no to cocaine is not salient enough.

Due to his contradictory statements about his intention I asked him to clarify this point. He told me, he ‘still does not want to change anything, but instead offset [his consumption] through other things, for example still less meat’. Since he knows quite well about the NSEAIC and meat production, it can be assumed that he does not aim to reduce the consequences of cocaine by reducing meat consumption because that is not possible. Instead, less meat consumption for him seems to work like a letter of indulgence to compensate the bad conscience he gains from taking cocaine.

#### ***5.1.3 Information salience***

I often stressed the fact, that the salience of saying no to cocaine is an important factor to enable less consumption. Yet, it can be assumed that the possibility to say no, as saying yes, is always salient, even under the influence of drugs. What might not be salient in the exciting moment of the decision to consume, is the intention to lower the consumption or the implications of one’s deeds that might have lead to this intention in the first place. However, discussing the way to increase this salience is outside the scope of this thesis.

### **5.2 Group dynamics**

R4 ‘thinks he reflects information in media. [His] consumption of chocolate would probably go down, if there were information about negative consequences’. Albeit, he is not one of the respondents who deem information particularly impactful in regard to their behaviour. He started reducing his meat consumption because of the good example of his sister. Moving to Berlin further increased his social and environmental consciousness, because ‘there the vibe is generally more green and leftist’. He thinks, if a few of his peers would start taking less cocaine, he ‘would possibly also reduce it’, ‘since it is a group thing’. Yet, he adds he would ‘probably also [reduce it] because of the reflection about [his peers]’



reduction of consumption. [He] would want to understand that behaviour and conclude whether it relates to [him] and whether [he] should act in accordance’.

This approach points to the idea of leadership. Here it would work through two mechanisms: first, because the ‘leader’s’ behaviour would be reflected and possibly adopted. Second, because taking cocaine is a social event and would less likely happen the fewer persons in the group are inclined to partake in it. Thus, it seems plausible that seven out of ten probands define their peers’ behaviour or group dynamics as facilitating condition in abdicating cocaine (see 4.3.2). Despite the fact, that, according to all ten respondents, there is no peer pressure involved in taking cocaine, the group’s attitude towards consumption influences what will happen. The higher the number of peers saying no, the less some people might experience FOMO. Thus, although not a good indicator for intention, reducing FOMO might occasionally set the hare running by making it easier to say no.

In 4.2.1, the respondents describe that from time to time individual peers are declining offers out of personal reasons. According to R4 observing that does not influence the observer’s behavioural intention because it does not lead to a reflection of the intended long term cocaine consumption. If someone were to openly decline an offer out of environmental or social reasons, this might, by following R4’s reasoning, lead to peers reflecting and adapting this behaviour. Several peers declining cocaine or a reasoned mutual decision against cocaine consumption, as R5 recommends (see 4.3.2), could further this effect.

Above paragraphs show that for some casual cocaine consumers it does not seem to be relevant, whether their peers take cocaine or not, but why they are taking cocaine or not. Whether the same distinction applies for the subjective norm, namely that it is not important whether the referents approve or disapprove, but why they do so, can’t be concluded from the available data.

### **5.3 Policy recommendation**

The social and environmental ramifications of cocaine consumption necessitate counteracting measures. Although this study has a limited representativity (see 3.2.1) I will attempt to formulate policy recommendations.

The respondents identified numerous facilitating or constraining conditions that could give hints which buttons politics could press. Tougher legislation is one of them, yet given the experience of decades of futile cocaine prohibition this approach’s viability is doubtful (Stevens, 2010). It might even backfire, as the examples of R3, R4, R6 and R7 show. In the case of R3 illegality veils immorality and thus inhibits a reflection process (see 5.1.2). In the latter cases, rising penalties exert a counterintuitive allure probably leading to rising consumption (see 4.3.2). Other options brought forth in the FCCs like reducing someone’s disposable income because of drug consumption or limiting the occasions where cocaine is consumed can’t be deemed compatible with a liberal democracy.

5.1 showed that information about the consequences of one's behaviour is vital to take informed decisions about it. It is furthermore important that this information is salient to increase the salience of saying no in the moment of (not) consuming.

### **5.3.1 Provision of information**

Most respondents said they would not actively seek information about the origin and production of drugs but dominantly about personal medical effects and consequences (see appendix A.10 for details). Thus, information outside this spectrum has to be prominent to make people aware of it. Yet, many respondents see information in the media about drugs in general and cocaine specifically as insufficient or inadequate (see appendix A.11 for details).

The respondents' opinions of the media's handling of drugs are diverse. The quintessence is that well educated individuals whose decisions to take drugs are reasoned and well reflected, require 'neutral, not moralising information to draw conclusions [themselves]' (R10). Yet, the example of R2 in 5.1.2 shows that information should also allow for personal identification to potentially trigger those very reflection processes.

It is the task of the government, amongst others, to shape the discourse about drugs and provide sufficient and appropriate information about drug use. However, this first requires a change of the persisting governmental perspective on drug use as something predominantly illegal, morally reprehensible and usually performed by subjects outside of society or on their way there.

Alas, even sufficient information does not unflinchingly breed responsible behaviour. As 5.1.2 showed, there are various ways individuals can act against the best of their knowledge. Furthermore, even when adequate information has a significant effect on casual cocaine consumers, those are only consuming 10% of all cocaine (see figure 2). Hence, the impact is considerably low. It would be advisable to tackle the root of the problem, not the symptom.

### **5.3.2 Legalise it?**

The problem of harmful and detrimental cocaine production has two roots. First, illegalisation leading to cocaine production as we know it. Second, the answer to the question why people are actually taking drugs. This question can't be discussed within this thesis, yet the first point was clearly evinced in chapter 2. A legalisation and regulation of the coca/-ine market, as e.g. the *Global Commission on Drug Policy* recommends, could eliminate a lot of the problems presented in chapter 2 (Global Commission on Drug Policy, 2018).

## 6 Concluding remarks

This study did not focus on a ‘descriptive-analytical’ (Wiek, Ness, Schweizer-Ries, Brand, and Farioli, 2012, p. 5) approach to understand *how* the illegalisation of cocaine shapes the indirect human-environment interaction that cocaine consumption represents. What to do about that is a political discussion underlain with different value-systems (Stevens, 2010). However, the illegalisation of cocaine can be seen as a short-term given and so can its consequences. Framing those as sustainability problems represents a unique perspective allowing for the development of a different lever to counteract the problem.

By following Pamela Matson’s advice that in sustainability science ‘there is [...] a lot more [research] needed [...] in behavioral research’ (as quoted by Miller (2013, p. 285)), I aimed to shine light on the individual decision making processes of cocaine consumers to ‘generat[e] actionable knowledge’ (Wiek et al., 2012, p. 5) for political decision making. My approach is thus problem-driven and solution-oriented. However, the limited representativity of this study demands further research to develop adequate policy measures.

### 6.1 Future research

With more time, a longitudinal study would be possible which could show in as much the respondents’ intention is dominant to predict behaviour or whether salience or a yet unknown factor influences cocaine consumption. As 5.2 showed, group dynamics and social forces come into play in an individual’s decision in taking cocaine. A longitudinal study could try to depict the dynamics at play, finding ways to utilise them to foster consumption reductions. A comparative study over a certain time could better identify the value of information by researching whether knowing about the negative social and environmental outcomes of taking cocaine actually influences cocaine consumption over time or whether different factors prove to be dominant. The reflection process seems to be a key to act responsibly, yet as 5.1.2 and 5.2 showed, this process is kicked off by different triggers. It is important to research various possible ways triggering a reflection process. Subsequently, communication science can help to develop an ideal way to convey those triggers and increase information salience.

With a bigger sampling, research specifying psychological foundation and development of background factors such as RCC/RCG would be desirable. However, even within a bigger time frame it could be hard to find enough people for a representative study due to the sensitive topic.

## 6.2 Conclusion

It was the aim of this paper to map the psychosocial factors influencing the decision of casual cocaine consumers to say no to cocaine. I interviewed ten persons from my circle of acquaintances in Berlin and could define cocaine knowledge, attitude towards responsible consumption, instrumental and emotional behavioural beliefs, and group dynamics as main factors in indicating a person's intention to say no to cocaine. As soon as one has the intention to say no, it is mainly the salience of the behaviour that limits its execution.

The analysis showed that information about the consequences of one's actions is necessary, yet not sufficient to change one's behaviour in a responsible way. It could be shown that an emotional aspect like bad conscience can work as trigger to 'feel' responsible and reconsider one's behaviour if one has respective knowledge. Yet, some interviewees displayed mechanisms to overcome such hurdles for consumption, thereby showing that information and a bad conscience do not necessary lead to responsible behaviour.

The history of drug consumption shows that the framing of drugs hitherto common in the public discourse and their prohibition does not produce the desired outcomes. It should be in the self-interest of politics and their responsibility to the planet to make consumers aware of the consequences of their consumption, as information is vital to be able to reflect one's behaviour. However, the root of the problem — illegalisation — will not be eliminated by hoping on the self-restraint of consumers. Relating to the preface and Ed Vulliamy's question in the Guardian 'Will El Chapo's conviction change anything in the drug trade?'<sup>6</sup> I am therefore asking: Will responsible consumption change anything in the drug trade?

---

<sup>6</sup><https://www.theguardian.com/...drug-war-drug-trade>

## Bibliography

22. *Federal Drug Control Funding*. (2018). Retrieved March 17, 2019, from [https://www.whitehouse.gov/wp-content/uploads/2018/02/ap\\_22\\_drug\\_control-fy2019.pdf](https://www.whitehouse.gov/wp-content/uploads/2018/02/ap_22_drug_control-fy2019.pdf). (Cit. on p. 54)
- AIREN. (2010). *Strobo*. SuKuLTuR. (Cit. on p. iv).
- AJZEN, I. (2019a, March 2). The Theory of Planned Behavior: A Bibliography compiled by Icek Ajzen. Retrieved April 15, 2019, from <http://people.umass.edu/aizen/tpbrefs.html>. (Cit. on pp. 15, 53)
- AJZEN, I. (2019b, March 28). The Theory of Planned Behaviour: Frequently Asked Questions. Retrieved April 15, 2019, from <http://people.umass.edu/aizen/faq.html>. (Cit. on p. 15)
- AJZEN, I., & FISHBEIN, M. A. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall. (Cit. on p. 14).
- ALBARRACÍN, D., JOHNSON, B. T., FISHBEIN, M., & MUELLERLEILE, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological bulletin*, *127*(1), 142. (Cit. on p. 14).
- ALBARRACÍN, D., KUMKALE, G. T., & JOHNSON, B. T. (2004). Influences of social power and normative support on condom use decisions: A research synthesis. *AIDS care*, *16*(6), 700–723. (Cit. on p. 15).
- ÁLVAREZ, M. D. (2003). Forests in the time of violence: conservation implications of the Colombian war. *Journal of Sustainable Forestry*, *16*(3-4), 47–68. (Cit. on p. 10).
- AMERICAN PSYCHIATRIC ASSOCIATION. (1994). *Diagnostic and statistical manual of mental disorders (4th ed.)* (Cit. on p. 18).
- ARMITAGE, C. J., & CONNER, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, *40*(4), 471–499. (Cit. on p. 15).
- ARVOLA, A., VASSALLO, M., DEAN, M., LAMPILA, P., SABA, A., LÄHTEENMÄKI, L., & SHEPHERD, R. (2008). Predicting intentions to purchase organic food: The role of affective and moral attitudes in the theory of planned behaviour. *Appetite*, *50*(2-3), 443–454. (Cit. on p. 53).
- BAGLEY, B. M. (1988). Colombia and the War on Drugs. *Foreign Affairs*, *67*(1), 70–92. (Cit. on pp. 7, 8).
- BAMBERG, S., & SCHMIDT, P. (2003). Incentives, morality, or habit? Predicting students' car use for university routes with the models of Ajzen, Schwartz, and Triandis. *Environment and Behavior*, *35*(2), 264–285. (Cit. on p. 16).
- BAUMEISTER, R. F., & VOHS, K. D. (2007). *Encyclopedia of Social Psychology*. Sage. (Cit. on p. 25).
- BAUMGARTNER, F., KUNZ, N., & SCHOOP, F. (2017, March 15). Kokain gehört in Zürich mittlerweile zum Alltag [Cocaine is nowadays part of everyday life in Zürich]. *Neue Züricher Zeitung*. Retrieved

- April 16, 2019, from <https://www.nzz.ch/zuerich/kokain-in-zuerich-im-bann-des-weissen-gifts-ld.150910>. (Cit. on p. 1)
- BECKER, M. H. (1974). The health belief model and personal health behavior. *Health education monographs*, 2, 324–473. (Cit. on p. 14).
- BETANCUR, K. C. (2018, August 15). Gebt das Koks frei! [Legalise cocaine!] *Die Zeit*. Retrieved April 18, 2019, from <https://www.zeit.de/2018/34/legalisierung-kokain-drogen-kartelle-narcos-prohibition/komplettansicht>. (Cit. on p. 3)
- BHASKAR, R. (1975). *A realist theory of science*. Routledge. (Cit. on p. 52).
- BHASKAR, R. (1979). *The philosophy of naturalism: A philosophical critique of the contemporary human sciences*. FFarvester, Brighton, UK. (Cit. on p. 52).
- BHASKAR, R. (2013). Philosophy and scientific realism. In M. ARCHER, R. BHASKAR, A. COLLIER, T. LAWSON, & A. NORRIE (Eds.), *Critical realism: Essential readings*. doi:10.4324/9781315008592. (Cit. on p. 52)
- BOOTH, B. M., STEWART, K. E., CURRAN, G. M., CHENEY, A. M., & BORDERS, T. F. (2014). Beliefs and attitudes regarding drug treatment: Application of the theory of planned behavior in african-american cocaine users. *Addictive behaviors*, 39(10), 1441–1446. (Cit. on p. 53).
- BRADLEY, A. V., & MILLINGTON, A. (2008a). Agricultural land-use trajectories in a cocaine source region: Chapare, Bolivia. *Land change science in the Tropics*. Springer, New York, USA, 231–250. (Cit. on p. 10).
- BRADLEY, A. V., & MILLINGTON, A. (2008b). Coca and colonists: Quantifying and explaining forest clearance under coca and anti-narcotics policy regimes. *Ecology and Society*, 13(1). Retrieved from <https://www.ecologyandsociety.org/vol13/iss1/art31/main.html>. (Cit. on pp. 1, 9, 10)
- BRAIN, R. A., & SOLOMON, K. R. (2009). Comparison of the hazards posed to amphibians by the glyphosate spray control program versus the chemical and physical activities of coca production in Colombia. *Journal of Toxicology and Environmental Health - Part A: Current Issues*, 72(15-16), 937–948. doi:10.1080/15287390902929683. (Cit. on pp. 1, 12)
- BRETTEVILLE-JENSEN, A. L., COSTA STORTI, C., KATTAU, T., MIKULIC, S., TRIGUEIROS, F., PAPAMALIS, F., ... TSAREV, S. (2017). *Public Expenditure on Supply Reduction Policies*. European Monitoring Centre for Drugs and Drug Addiction. Retrieved March 12, 2019, from [http://www.emcdda.europa.eu/system/files/publications/4631/Public\\_expenditure\\_Pompidou\\_Group\\_EMCDDE.pdf](http://www.emcdda.europa.eu/system/files/publications/4631/Public_expenditure_Pompidou_Group_EMCDDE.pdf). (Cit. on pp. 8, 9, 54)
- BRODZINSKY, S. (2015, May 6). Last flight looms for US-funded air war on drugs as Colombia counts health cost. *The Guardian*. Retrieved March 20, 2019, from <https://www.theguardian.com/world/2015/may/06/colombia-air-war-drugs-last-flight-looms-health-cost>. (Cit. on p. 12)
- BRYMAN, A. (2016). *Social research methods*. Oxford university press. (Cit. on pp. 16, 18).
- BUREAU OF JUSTICE STATISTICS. (2019). Drugs and Crime Facts. Retrieved March 6, 2019, from <https://www.bjs.gov/content/duc/duc.cfm>. (Cit. on p. 8)

- CALDERON, L., FERREIRA, O. R., & SHIRK, D. A. (2018, April 1). *Drug Violence in Mexico: Data and Analysis Through 2017*. University of San Diego: Department of Political Science & International Relations. Retrieved March 5, 2019, from [https://justiceinmexico.org/wp-content/uploads/2018/04/180411\\_DrugViolenceinMexico-12mb.pdf](https://justiceinmexico.org/wp-content/uploads/2018/04/180411_DrugViolenceinMexico-12mb.pdf). (Cit. on p. 8)
- CAMACHO, A., & MEJIA, D. (2015). The Health Consequences of Aerial Spraying of Illicit Crops: The Case of Colombia. *Center for Global Development: Working Paper 408*. Retrieved March 19, 2019, from <https://www.cgdev.org/sites/default/files/CGD-Working-Paper-408-Camacho-Mejia-Health-Consequences-Aerial-Spraying-Colombia.pdf>. (Cit. on pp. 1, 10, 12)
- CAULKINS, J. P., DISLEY, E., TZVETKOVA, M., PARDAL, M., SHAH, H., & ZHANG, X. (2016). Modeling the structure and operation of drug supply chains: The case of cocaine and heroin in Italy and Slovenia. *International Journal of Drug Policy*, *31*, 64–73. (Cit. on p. 5).
- CAVELIER, J., & ETTER, A. (1995). Deforestation of montane forests in Colombia as a result of illegal plantations of opium (*Papaver somniferum*). In S. P. CHURCHILL, H. BALSLEV, E. FORERO, & J. L. LUTEYN (Eds.), *Biodiversity and conservation of Neotropical montane forests*. The New York Botanical Garden, Bronx, New York. (Cit. on p. 10).
- CODHES. (2003). *Plan Colombia: Contraproductos y Crisis Humanitaria. Fumigaciones y desplazamiento en la frontera con Ecuador*. Consultoría para los Derechos Humanos y el Desplazamiento. Retrieved March 20, 2019, from <http://www.codhes.org/~codhes/images/biblioteca/PlanColombia-Ecuador.pdf>. (Cit. on pp. 1, 12)
- COLLINS, D., LAPSLEY, H., LECAVALIER, J., & SINGLE, E. (2000). Introduction: Improving economic data to inform decisions in drug control. *Boletín de estupefacientes*, *52*(1), 1. (Cit. on p. 9).
- DALBY, C., & CARRANZA, C. (2019, January 22). InSight Crime's 2018 Homicide Round-Up. Retrieved March 6, 2019, from <https://www.insightcrime.org/news/analysis/insight-crime-2018-homicide-roundup/>. (Cit. on p. 8)
- DÁVALOS, L. M., BEJARANO, A. C., HALL, M. A., CORREA, H. L., CORTHALS, A., & ESPEJO, O. J. (2011). Forests and drugs: Coca-driven deforestation in tropical biodiversity hotspots. *Environmental Science and Technology*, *45*(4), 1219–1277. doi:10.1021/es102373d. (Cit. on pp. 1, 10)
- DONALD, I. J., COOPER, S. R., & CONCHIE, S. M. (2014). An extended theory of planned behaviour model of the psychological factors affecting commuters' transport mode use. *Journal of Environmental Psychology*, *40*, 39–48. doi:10.1016/j.jenvp.2014.03.003. (Cit. on pp. 16, 53)
- DOUROJEANNI, M. (1992). Environmental impact of coca cultivation and cocaine production in the Amazon region of Peru. *Bulletin on narcotics*, *44*, 37–53. Retrieved from [https://www.researchgate.net/publication/21852306\\_Environmental\\_impact\\_of\\_coca\\_cultivation\\_and\\_cocaine\\_production\\_in\\_the\\_Amazon\\_region\\_of\\_Peru](https://www.researchgate.net/publication/21852306_Environmental_impact_of_coca_cultivation_and_cocaine_production_in_the_Amazon_region_of_Peru). (Cit. on p. 11)
- DOWNS, D. S., & HAUSENBLAS, H. A. (2005). Elicitation studies and the theory of planned behavior: A systematic review of exercise beliefs. *Psychology of sport and exercise*, *6*(1), 1–31. (Cit. on p. 15).

- DUN, M. v. (2009). *Cocaleros. Violence, drugs and social mobilization in the post-conflict Upper Huallaga Valley, Peru*. Rozenberg Publishers. (Cit. on p. 6).
- DURANTINI, M. R. (2006). Conceptualizing the Influence of Social Agents of Change: A Meta-Analysis of HIV Prevention Interventions for Different Groups. *Psychological Bulletin*, 132, 212–248. (Cit. on p. 15).
- EMCDDA. (2003). *Public expenditure in the area of drug-demand reduction*. European Monitoring Centre for Drugs and Drug Addiction. Retrieved March 12, 2019, from [http://www.emcdda.europa.eu/system/files/publications/297/sel2003\\_3-en\\_69692.pdf](http://www.emcdda.europa.eu/system/files/publications/297/sel2003_3-en_69692.pdf). (Cit. on pp. 4, 9, 55)
- EMCDDA. (2016). *EU Drug Markets Report 2016: In-depth Analysis*. European Monitoring Centre for Drugs and Drug Addiction. Retrieved March 21, 2019, from <http://www.emcdda.europa.eu/start/2016/drug-markets#pane0>. (Cit. on pp. 1, 12, 13)
- EMCDDA. (2017). Drug treatment expenditure: a methodological overview. *EMCDDA Insights*. Retrieved March 12, 2019, from [http://www.emcdda.europa.eu/publications/insights/drug-treatment-expenditure-measurement\\_en](http://www.emcdda.europa.eu/publications/insights/drug-treatment-expenditure-measurement_en). (Cit. on p. 54)
- EMCDDA. (2018a). Drug-related homicide in Europe: a first review of the data and literature. *EMCDDA Papers*. Retrieved March 6, 2019, from [http://www.emcdda.europa.eu/system/files/publications/8838/20182100\\_TDAU18001ENN\\_PDF.pdf](http://www.emcdda.europa.eu/system/files/publications/8838/20182100_TDAU18001ENN_PDF.pdf). (Cit. on pp. 7, 8)
- EMCDDA. (2018b, January 16). Drug-related public expenditure. Retrieved from <http://www.emcdda.europa.eu/topics/drug-related-public-expenditure>. (Cit. on p. 8)
- EMCDDA. (2018c, June 7). *European Drug Report 2018: Highlights – resurgence of cocaine in a dynamic drug market*. European Monitoring Centre for Drugs and Drug Addiction. Retrieved April 18, 2019, from [http://www.emcdda.europa.eu/system/files/attachments/8906/HighlightsEDR2018\\_EN\\_Final\\_web.pdf](http://www.emcdda.europa.eu/system/files/attachments/8906/HighlightsEDR2018_EN_Final_web.pdf). (Cit. on p. 1)
- EMCDDA. (2018d). *European Drug Report: Trends and Developments*. European Monitoring Centre for Drugs and Drug Addiction. Retrieved March 3, 2019, from [http://www.emcdda.europa.eu/system/files/publications/8585/20181816\\_TDAT18001ENN\\_PDF.pdf](http://www.emcdda.europa.eu/system/files/publications/8585/20181816_TDAT18001ENN_PDF.pdf). (Cit. on p. 5)
- Wastewater analysis and drugs – a European multi-city study. (2019, March 14). Retrieved April 18, 2016, from <http://www.emcdda.europa.eu/topics/pods/waste-water-analysis>. (Cit. on pp. 1, 2, 13)
- ESCOBAR, M. R., & JIMENEZ, S. (2013, April 24). Informe de la Cruz Roja Internacional: acuerdos con las FARC no acaran la violencia. *El Espectador*. (Cit. on p. 8).
- EUROPEAN CENTRAL BANK. (2019). Euro foreign exchange reference rates: US dollar. Retrieved March 3, 2019, from [https://www.ecb.europa.eu/stats/policy\\_and\\_exchange\\_rates/euro\\_reference\\_exchange\\_rates/html/eurofxref-graph-usd.en.html](https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-usd.en.html). (Cit. on p. 5)
- EUROPOL. (2017). *SOCTA 2017: European Union: Serious and Organised Crime Threat Assessment 2017*. Retrieved March 3, 2019, from <https://www.europol.europa.eu/activities-services/main-reports/european-union-serious-and-organised-crime-threat-assessment-2017>. (Cit. on p. 6)



- FELBAB-BROWN, V. (2009, March 9). The Violent Drug Market in Mexico and Lessons from Colombia. *Brookings Foreign Policy Paper Series*. Retrieved March 20, 2019, from <https://www.brookings.edu/research/the-violent-drug-market-in-mexico-and-lessons-from-colombia/>. (Cit. on p. 12)
- FEUER, A. (2019, February 12). El chapo found guilty on all counts; faces life in prison. *The New York Times*. Retrieved February 28, 2019, from <https://www.nytimes.com/2019/02/12/nyregion/el-chapo-verdict.html>. (Cit. on p. iv)
- FIGUEIRA, D. (2012). *Cocaine trafficking in the Caribbean and West Africa in the era of the Mexican Cartels*. iUniverse. (Cit. on p. 6).
- FISHBEIN, M. A. (2000). The role of theory in hiv prevention. *AIDS care*, 12(3), 273–278. (Cit. on p. 16).
- FISHBEIN, M. A. (2007). A reasoned action approach: Some issues, questions, and clarifications. In I. AJZEN, D. ALBARRACIN, & R. HORNIK (Eds.), *Prediction and Change of Health Behavior - Applying the Reasoned Action Approach* (pp. 281–295). Lawrence Erlbaum Associates Mahwah, NJ. (Cit. on p. 14).
- FISHBEIN, M. A., & AJZEN, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. (Cit. on p. 14).
- FISHBEIN, M. A., CAPPELLA, J., HORNIK, R., SAYEED, S., YZER, M., & AHERN, R. K. (2002). The role of theory in developing effective anti-drug public service announcements. In W. D. CRANO & M. BURGOON (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research* (pp. 89–117). Erlbaum Mahwah, NJ. (Cit. on p. 53).
- FJELDSÅ, J., ÁLVAREZ, M. D., LAZCANO, J. M., & LEÓN, B. (2005). Illicit crops and armed conflict as constraints on biodiversity conservation in the andes region. *Ambio*, 34(3), 205–211. doi:10.1579/0044-7447-34.3.205. (Cit. on pp. 1, 11, 12)
- FLETCHER, A. J. (2017). Applying critical realism in qualitative research: Methodology meets method. *International Journal of Social Research Methodology*, 20(2), 181–194. doi:10.1080/13645579.2016.1144401. (Cit. on p. 52)
- FLORIJN, C. (2019, February 12). Hat Deutschland ein Koks-Problem? [Does Germany have a cocaine problem?] *orange by Handelsblatt*. Retrieved April 16, 2019, from <https://orange.handelsblatt.com/artikel/54138>. (Cit. on p. 1)
- Gesetz über den Verkehr mit Betäubungsmitteln (Betäubungsmittelgesetz - BtMG) [Controlled Substances Act]*. (1981, July 28). Retrieved April 16, 2019, from [http://www.gesetze-im-internet.de/btmg\\_1981/BJNR106810981.html](http://www.gesetze-im-internet.de/btmg_1981/BJNR106810981.html). (Cit. on p. 18)
- GLANZ, K., RIMER, B. K., & VISWANATH, K. (2008). *Health behavior and health education: Theory, research, and practice*. John Wiley & Sons. (Cit. on pp. 14–17).
- GLOBAL COMMISSION ON DRUG POLICY. (2018). *Regulation: The Responsible Control of Drugs*. Global Commission on Drug Policy. Retrieved May 2, 2019, from <http://www.globalcommissionondrugs.org/reports/regulation-the-responsible-control-of-drugs>. (Cit. on p. 36)

- GOLDSTEIN, P. J. (1985). The drugs/violence nexus: A tripartite conceptual framework. *Journal of drug issues*, 15(4), 493–506. (Cit. on p. 7).
- GOMEZ, A., BUSSINK, C., BAUER, T., FRITZ, S., ESCOBAR, A., GIUSTI, M., ... ATZBERGER, C. (2014). Examining the potential of using information on fire detected by MODIS and socio-economic variables to highlight potential coca cultivations in forest areas in Colombia. *Open Geography Journal*, 6, 18–29. Retrieved from <http://pure.iiasa.ac.at/id/eprint/10777/>. (Cit. on p. 9)
- GORDON, L., TINSLEY, L., GODFREY, C., PARROTT, S., SINGLETON, N., MURRAY, R., & TINSLEY, L. (2006). The economic and social costs of Class A drug use in England and Wales, 2003/04. In *Measuring different aspects of problem drug use* (6th ed., Vol. 16). Home Office Online Report. Home Office. (Cit. on p. 54).
- GREENFIELD, P. (2018, July 27). Middle-class cocaine use fuels London's rising violence, says Sadiq Khan. *The Guardian*. Retrieved March 6, 2019, from <https://www.theguardian.com/society/2018/jul/27/middle-class-cocaine-use-fuels-londons-rising-violence-says-sadiq-khan-knife-crime>. (Cit. on p. 8)
- GRUENWALD, T. (2015, May 27). Nearly 200 have died in manual eradication of coca in Colombia. *Colombia Reports*. Retrieved March 21, 2019, from <https://colombiareports.com/nearly-200-have-died-in-manual-eradication-of-coca-in-colombia/>. (Cit. on p. 12)
- GUPTA, S., DAVOODI, H., & ALONSO-TERME, R. (2002). Does corruption affect income inequality and poverty? *Economics of governance*, 3(1), 23–45. (Cit. on p. 6).
- HANSON, M. J. S. (2018). Attitudes and perceptions about cigarette smoking among nonsmoking high school students. *Journal of the American Association of Nurse Practitioners*, 30(2), 60–63. (Cit. on p. 53).
- HARDEMAN, W., JOHNSTON, M., JOHNSTON, D., BONETTI, D., WAREHAM, N., & KINMONTH, A. L. (2002). Application of the theory of planned behaviour in behaviour change interventions: A systematic review. *Psychology and health*, 17(2), 123–158. (Cit. on p. 15).
- HARDIN, G. (1968). The tragedy of the commons. *Science*, 162(3859), 1243–1248. (Cit. on p. 16).
- HARMON, S. A. (2016). *Terror and insurgency in the Sahara-Sahel region: corruption, contraband, jihad and the Mali war of 2012-2013*. Routledge. (Cit. on p. 6).
- HARRIS, J. (2018). Warum Kolumbien den Kokainkrieg verliert [Why Colombia loses the drug war]. *Vox*. Retrieved February 28, 2019, from [https://www.youtube.com/watch?v=NDa\\_SpvbeCQ](https://www.youtube.com/watch?v=NDa_SpvbeCQ). (Cit. on p. iv)
- HASKING, P., & SCHOFIELD, L. (2015). Examining alcohol consumption with the theory of planned behaviour: Do health and alcohol knowledge play a role? *Psychology, health & medicine*, 20(7), 838–845. (Cit. on p. 53).
- HEATH, Y., & GIFFORD, R. (2002). Extending the theory of planned behavior: Predicting the use of public transportation 1. *Journal of Applied Social Psychology*, 32(10), 2154–2189. (Cit. on p. 16).

- HEINZLE, C., GÜRTLER, L., & STRUNZ, B. (2017, December 27). Rekordzahlen in Deutschland – Die Kokainschwemme [Record numbers in German – the cocaine flood]. *Tagesschau*. Retrieved April 18, 2019, from <https://www.tagesschau.de/inland/kokainschwemme-deutschland-101.html>. (Cit. on p. 1)
- HENKEL, R. (1995). *Coca (Erythroxylum coca) cultivation, cocaine production, and biodiversity loss in the Chapare region of Bolivia* (S. P. CHURCHILL, Ed.). New York Botanical Garden. (Cit. on pp. 11, 12).
- HÖPPNER, Y. (2019, February 18). Berlin wird zu einem Drehkreuz für Kokain [Berlin becomes a cocaine trading hub]. *Berliner Morgenpost*. Retrieved April 16, 2019, from <https://www.morgenpost.de/berlin/article216464695/Berlin-wird-zu-einem-Drehkreuz-fuer-Kokain.html>. (Cit. on p. 1)
- INTERNATIONAL NARCOTICS CONTROL BOARD. (2003). *Report of the International Narcotics Control Board for 2002 - I. Illicit drugs and economic development*. International Narcotics Control Board. United Nations Publications. (Cit. on p. 6).
- JACCARD, J., DODGE, T., & DITTUS, P. (2002). Parent-adolescent communication about sex and birth control: A conceptual framework. *New directions for child and adolescent development, 2002(97)*, 9–42. (Cit. on p. 14).
- JESÚS, S. G. (2009). Empirical study of the planned behavior theory variables as risk factors for cocaine use in three different groups. *Adicciones, 21(3)*. (Cit. on p. 53).
- JOMPHE, H. A., & BOUDREAU, F. (1999). Prediction on intention to use cigarettes among high-school students: An application of the theory of planned behavior. *Science et Comportement, 27*, 53–67. (Cit. on p. 53).
- KAISER, F. G., HÜBNER, G., & BOGNER, F. X. (2005). Contrasting the theory of planned behavior with the value-belief-norm model in explaining conservation behavior. *Journal of applied social psychology, 35(10)*, 2150–2170. (Cit. on p. 16).
- KAISER, F. G., & SCHEUTHLE, H. (2003). Two challenges to a moral extension of the theory of planned behavior: Moral norms and just world beliefs in conservationism. *Personality and individual differences, 35(5)*, 1033–1048. (Cit. on p. 16).
- KILMER, B., CAULKINS, J. P., & EVERINGHAM, S. S. (2014). *What america's users spend on illegal drugs, 2000-2010*. Rand Corporation Santa Monica, CA. (Cit. on p. 4).
- KLOCKE, U., & WAGNER, U. (2000). Bedingungen umweltbewussten Verhaltens bei der Anschaffung einer Biotonne [Determinants of pro-environmental behavior: Why do people acquire a biobin to recycle their organic refuse]. *Umweltpsychologie, 4(2)*, 68–83. (Cit. on p. 53).
- KOHLBERG, L. (1984). *The philosophy of moral development: The nature and validity of moral stages*. Harper & Row. (Cit. on p. 33).
- LABRADOR, R. C., & RENWICK, D. (2018, June 26). Central America's Violent Northern Triangle. Retrieved March 6, 2019, from <https://www.cfr.org/backgrounder/central-americas-violent-northern-triangle>. (Cit. on p. 8)

- LAKHANI, N., & TIRADO, E. (2016, December 8). Mexico's war on drugs: what has it achieved and how is the US involved? *The Guardian*. Retrieved March 17, 2019, from <https://www.theguardian.com/news/2016/dec/08/mexico-war-on-drugs-cost-achievements-us-billions>. (Cit. on p. 54)
- LANDESKRIMINALAMT. (2018). *Polizeiliche Kriminalstatistik Berlin 2018 [Crime statistics Berlin 2018]*. Landeskriminalamt. Retrieved April 18, 2019, from <https://www.berlin.de/polizei/verschiedenes/polizeiliche-kriminalstatistik/>. (Cit. on p. 1)
- LAVILLE, S. (2008, November 19). Cocaine users are destroying the rainforest – at 4 square metres a gram. *The Guardian*. Retrieved April 18, 2019, from <https://www.theguardian.com/world/2008/nov/19/cocaine-rainforests-columbia-santos-calderon>. (Cit. on p. 2)
- LIN, S.-C., NADLIFATIN, R., AMNA, A., PERSADA, S., & RAZIF, M. (2017). Investigating citizen behavior intention on mandatory and voluntary pro-environmental programs through a pro-environmental planned behavior model. *Sustainability*, *9*, 1289. doi:10.3390/su9071289. (Cit. on p. 16)
- MALONEY, J., LEE, M.-Y., JACKSON, V., & MILLER-SPILLMAN, K. (2014). Consumer willingness to purchase organic products: Application of the theory of planned behavior. *Journal of Global Fashion Marketing*, *5*, 308–321. doi:10.1080/20932685.2014.925327. (Cit. on p. 53)
- MCMANARA, J. D. (2011). The Hidden Costs of America's War on Drugs. *Journal of Private Enterprise*, *26*(2). (Cit. on p. 54).
- MEJIA, D. (2015, April 29). Plan Colombia: An Analysis of Effectiveness and Costs. In *Improving Global Drug Policy: Comparative Perspectives and UNGASS 2016*. Retrieved March 17, 2019, from <https://www.brookings.edu/wp-content/uploads/2016/07/Mejia-Colombia-final-2.pdf>. (Cit. on pp. 12, 13, 54)
- MEJIA, D., & RESTREPO, P. (2013). Bushes and bullets: illegal cocaine markets and violence in Colombia. *Documento CEDE*, (2013-53). (Cit. on p. 7).
- MEMIER, M. (2017). AQMI et Al-Mourabitoun: le djihad sahelien reunifie? *Etudes de l'Ifri*, 1–54. (Cit. on p. 6).
- MESSINA, J. P., & DELAMATER, P. L. (2006). Defoliation and the war on drugs in Putumayo, Colombia. *International Journal of Remote Sensing*, *27*(1), 121–128. doi:10.1080/01431160500293708. (Cit. on p. 10)
- MILLER, T. R. (2013). Constructing sustainability science: Emerging perspectives and research trajectories. *Sustainability science*, *8*(2), 279–293. (Cit. on p. 37).
- Misuse of Drugs Act 1971*. (2019). Retrieved March 17, 2019, from <http://www.legislation.gov.uk/ukpga/1971/38/contents>. (Cit. on p. 54)
- MORELL-GOMIS, R., MORIANO, J. A., LAGUÍA, A., DIAS, P., & LLORET, D. (2019). Adolescents' cannabis use intention: Validating a theory of planned behavior questionnaire in four european countries. *Journal of Substance Use*, *24*(1), 66–72. (Cit. on p. 53).
- MUFIDAH, I., JIANG, B., LIN, S.-C., CHIN, J., RACHMANIATI, Y., & PERSADA, S. (2018). Understanding the consumers' behavior intention in using green ecolabel product through pro-environmental planned

- behavior model in developing and developed regions: Lessons learned from taiwan and indonesia. *Sustainability*, *10*, 1423. doi:10.3390/su10051423. (Cit. on p. 16)
- NADLIFATIN, R., LIN, S.-C., RACHMANIATI, Y., PERSADA, S., & RAZIF, M. (2016). A pro-environmental reasoned action model for measuring citizens' intentions regarding ecolabel product usage. *Sustainability*, *8*(11), 1165. (Cit. on p. 16).
- NAVARRETE-FRÍAS, C., & VEILLETE, C. (2005). Drug crop eradication and alternative development in the Andes. *Congressional Research Service*. Retrieved March 20, 2019, from [https://digital.library.unt.edu/ark:/67531/metacrs7943/m1/1/high\\_res\\_d/RL33163\\_2005Nov18.pdf](https://digital.library.unt.edu/ark:/67531/metacrs7943/m1/1/high_res_d/RL33163_2005Nov18.pdf). (Cit. on p. 12)
- NORMAN, J. (2019, March 20). Days after Duque urged to spray his own people, US jury rules glyphosate is 'substantial' cancer factor. *Colombia Reports*. Retrieved March 21, 2019, from <https://colombiareports.com/days-after-duque-urged-to-spray-his-own-people-us-jury-rules-glyphosate-is-substantial-cancer-factor/>. (Cit. on p. 12)
- OBSERVATORIO DE DROGAS DE COLOMBIA. (2017). *Colombia Drug Report 2017*. Observatorio de Drogas de Colombia. Retrieved March 6, 2019, from <http://www.odc.gov.co/PUBLICACIONES/PID/4214/ev/1/CategoryID/33/CategoryName/Reporte-de-drogas-de-Colombia>. (Cit. on p. 8)
- OFFICE OF NATIONAL DRUG CONTROL POLICY. (2004). *The Economic Costs of Drug Abuse in the United States, 1992-2002*. Executive Office of the President: Office of National Drug Control Policy. Retrieved March 17, 2019, from [https://www.ncjrs.gov/ondcppubs/publications/pdf/economic\\_costs.pdf](https://www.ncjrs.gov/ondcppubs/publications/pdf/economic_costs.pdf). (Cit. on pp. 54, 55)
- OFFICE OF NATIONAL DRUG CONTROL POLICY. (2018, June 25). *New Annual Data Released by White House Drug Policy Office Shows Record High Coca Cultivation and Cocaine Production in Colombia*. Executive Office of the President: Office of National Drug Control Policy. Retrieved March 18, 2019, from [https://ndews.umd.edu/sites/ndews.umd.edu/files/executive-office-of-the-president-cocaine\\_6-25-2018.pdf](https://ndews.umd.edu/sites/ndews.umd.edu/files/executive-office-of-the-president-cocaine_6-25-2018.pdf). (Cit. on p. 10)
- ORBELL, S., BLAIR, C., SHERLOCK, K., & CONNER, M. (2001). The theory of planned behavior and ecstasy use: Roles for habit and perceived control over taking versus obtaining substances. *Journal of Applied Social Psychology*, *31*(1), 31–47. doi:10.1111/j.1559-1816.2001.tb02480.x. (Cit. on p. 53)
- PATOURIS, E., SCAIFE, V., & NOBES, G. (2016). A behavioral approach to adolescent cannabis use: Accounting for nondeliberative, developmental, and temperamental factors. *Journal of Substance Use*, *21*(5), 506–514. (Cit. on p. 53).
- RAETHER, E. (2016, October 13). Das Märchen von der guten Avocado [The fairy tale of the good avocado]. *Die Zeit*. Retrieved April 28, 2019, from <https://www.zeit.de/2016/43/avocado-superfood-anbau-oekologie-trend/komplettansicht>. (Cit. on p. 32)
- RINCÓN-RUIZ, A., CORREA, H. L., LEÓN, D. O., & WILLIAMS, S. (2016). Coca cultivation and crop eradication in Colombia: The challenges of integrating rural reality into effective anti-drug policy. *International Journal of Drug Policy*, *33*, 56–65. doi:10.1016/j.drugpo.2016.06.011. (Cit. on pp. 1, 12)

- RINCÓN-RUIZ, A., & KALLIS, G. (2013). Caught in the middle, colombia's war on drugs and its effects on forest and people. *Geoforum*, 46, 60–78. doi:10.1016/j.geoforum.2012.12.009. (Cit. on pp. 1, 12)
- ROBINSON, J. G., & REDFORD, K. H. (1994). Measuring the sustainability of hunting in tropical forests. *Oryx*, 28(4), 249–256. doi:10.1017/S0030605300028647. (Cit. on p. 12)
- ROLLES, S., MURKIN, G., POWELL, M., KUSHLICK, D., SAUNTER, N., & SLATER, J. (2016). *The Alternative World Drug Report: Counting the Costs of the War on Drugs 2nd Edition* (No. 2). Transform Drug Policy Foundation. Retrieved March 5, 2019, from <https://transformdrugs.org/product-category/reports/>. (Cit. on p. 4)
- ROMERO, M. (2003). *Paramilitares y autodefensas: 1982-2003*. Temas de Hoy. (Cit. on pp. 6, 7).
- SANDVIK, K., & HOELSCHER, K. (2017). The reframing of the war on drugs as a “humanitarian crisis”: Costs, benefits, and consequences. *Latin American Perspectives*, 44(4), 168–182. doi:10.1177/0094582X16683375. (Cit. on pp. 4, 7)
- SCHJELLERUP, I., ACHÚTEGUI, E., & QUIPUSCOA SILVESTRE, V. (2001). *Wayko-Lamas: la gente y la biodiversidad*. Cusco, PE: Centro para la Investigación sobre la Diversidad Cultural y Biológica de los Bosques Pluviales Andinos. (Cit. on p. 11).
- SESNIE, S. E., TELLMAN, B., WRATHALL, D., MCSWEENEY, K., NIELSEN, E., BENESSIAH, K., ... REY, L. (2017). A spatio-temporal analysis of forest loss related to cocaine trafficking in central america. *Environmental Research Letters*, 12(5). doi:10.1088/1748-9326/aa6fff/meta. (Cit. on p. 11)
- SHEERAN, P., & TAYLOR, S. (1999). Predicting intentions to use condoms: A meta-analysis and comparison of the theories of reasoned action and planned behavior. *Journal of Applied Social Psychology*, 29(8), 1624–1675. (Cit. on p. 15).
- SIDDIQUE, H. (2018, July 31). Middle-class cocaine users are hypocrites, says Met chief. *The Guardian*. Retrieved April 16, 2019, from <https://www.theguardian.com/society/2018/jul/31/middle-class-cocaine-users-are-hypocrites-says-met-chief-cressida-dick>. (Cit. on p. 26)
- SNYDER, R., & DURAN-MARTINEZ, A. (2009). Does illegality breed violence? drug trafficking and state-sponsored protection rackets. *Crime, law and social change*, 52(3), 253–273. (Cit. on pp. 1, 4, 6, 7).
- STAATS, H. (2003). Understanding proenvironmental attitudes and behavior: An analysis and review of research based on the theory of planned behavior. In M. BONNES, T. LEE, & M. BONAIUTO (Eds.), *Psychological theories for environmental issues*. Ashgate Publishing. (Cit. on p. 53).
- STEVENS, A. (2010). *Drugs, crime and public health: The political economy of drug policy*. Routledge-Cavendish. (Cit. on pp. 1, 4, 8, 35, 37).
- STOEVA, K., & ALRIKSSON, S. (2017). Influence of recycling programmes on waste separation behaviour. *Waste Management*, 68. doi:10.1016/j.wasman.2017.06.005. (Cit. on p. 53)

- TICKNER, A., GARCIA, D., & ARREAZA, C. (2011). Actores violentos no estatales y narcotráfico en Colombia. *Políticas antidroga en Colombia: éxitos, fracasos y extravíos*, Bogotá, Universidad de los Andes. (Cit. on pp. 6, 7).
- TRANSNATIONAL INSTITUTE (Ed.). (2003, October 1). Fumigations: The debate. Retrieved March 20, 2019, from <https://www.tni.org/es/node/12062#14a>. (Cit. on p. 12)
- TRIANDIS, H. C. (1979). Values, attitudes, and interpersonal behavior. In *Nebraska symposium on motivation*. University of Nebraska Press. (Cit. on p. 14).
- UMWELTBUNDESAMT. (2016, August 10). Umweltbewusstsein im Wandel: Global statt lokal [Changing environmental awareness: global not local]. Retrieved from <https://www.umweltbundesamt.de/themen/umweltbewusstsein-im-wandel-global-statt-lokal>. (Cit. on p. 2)
- UMWELTBUNDESAMT. (2017, April 25). Umweltbewusstsein und Umweltverhalten [Environmental awareness and behaviour]. Retrieved April 18, 2019, from <https://www.umweltbundesamt.de/daten/private-haushalte-konsum/umweltbewusstsein-umweltverhalten>. (Cit. on p. 2)
- UMWELTBUNDESAMT. (2018, December 19). Marktdaten: Bereich Ernährung [Market data: food]. Retrieved April 18, 2019, from [www.umweltbundesamt.de/daten/private-haushalte-konsum/konsum-produkte/gruene-produkte-marktzahlen/marktdaten-bereich-ernaehrung](http://www.umweltbundesamt.de/daten/private-haushalte-konsum/konsum-produkte/gruene-produkte-marktzahlen/marktdaten-bereich-ernaehrung). (Cit. on p. 2)
- UNITED NATIONS. (2015). Goal 16: Promote just, peaceful and inclusive societies. Retrieved March 3, 2019, from <https://www.un.org/sustainabledevelopment/peace-justice/>. (Cit. on p. 7)
- UNODC. (2006a). *Coca Cultivation in the Andean Region: a Survey of Bolivia, Colombia and Peru*. United Nations Office for Drugs and Crime. Vienna. Retrieved March 18, 2019, from [https://www.unodc.org/pdf/andean/Andean\\_full\\_report.pdf](https://www.unodc.org/pdf/andean/Andean_full_report.pdf). (Cit. on pp. 9–13)
- UNODC. (2006b). Interview with the Colombian Vice-President. Retrieved April 18, 2019, from <https://www.unodc.org/unodc/en/frontpage/interview-with-the-colombian-vice-president.html>. (Cit. on pp. 1, 2)
- UNODC. (2011, October 1). *Estimating illicit financial flows resulting from drug trafficking and other transnational organized crimes*. United Nations Office on Drugs and Crime. Vienna. Retrieved February 14, 2019, from [https://www.unodc.org/documents/data-and-analysis/Studies/Illicit\\_financial\\_flows\\_2011\\_web.pdf](https://www.unodc.org/documents/data-and-analysis/Studies/Illicit_financial_flows_2011_web.pdf). (Cit. on pp. 4–6, 8, 9, 54, 55)
- UNODC. (2012). *World Drug Report 2012*. United Nations Office on Drugs and Crime. Vienna. Retrieved February 24, 2019, from <https://www.unodc.org/unodc/en/data-and-analysis/WDR-2012.html>. (Cit. on p. 6)
- UNODC. (2013). *Global Study on Homicide: Trends, Context, Data*. United Nations Office on Drugs and Crime. Vienna. Retrieved March 6, 2019, from [https://www.unodc.org/documents/gsh/pdfs/2014\\_GLOBAL\\_HOMICIDE\\_BOOK\\_web.pdf](https://www.unodc.org/documents/gsh/pdfs/2014_GLOBAL_HOMICIDE_BOOK_web.pdf). (Cit. on pp. 7, 8)

- UNODC. (2015). *World Drug Report 2015*. United Nations Office on Drugs and Crime. Vienna. Retrieved March 3, 2019, from [https://www.unodc.org/documents/wdr2015/World\\_Drug\\_Report\\_2015.pdf](https://www.unodc.org/documents/wdr2015/World_Drug_Report_2015.pdf). (Cit. on pp. 1, 9, 10, 13)
- UNODC. (2016). *World Drug Report 2016*. United Nations Office on Drugs and Crime. Vienna. Retrieved March 17, 2019, from <https://www.unodc.org/wdr2016/>. (Cit. on pp. 1, 4, 9, 13, 55)
- UNODC. (2017). *World Drug Report 2017 - Booklet 5: The drug problem & organized crime, illicit financial flows, corruption & terrorism*. United Nations Office on Drugs and Crime. Vienna. Retrieved February 24, 2019, from <https://www.unodc.org/wdr2017/>. (Cit. on pp. 1, 5–7)
- UNODC. (2018). *World Drug Report 2018 - Booklet 3: Analysis of drug markets - Opiates, cocaine, cannabis, synthetic drugs*. United Nations Office on Drugs and Crime. Vienna. Retrieved February 24, 2019, from <https://www.unodc.org/wdr2018/>. (Cit. on pp. 5–7, 11)
- UNODC. (2019, March 18). UNODC and illicit crop monitoring. Retrieved from <https://www.unodc.org/unodc/en/crop-monitoring/>. (Cit. on pp. 9, 10, 13)
- US DEPARTMENT OF JUSTICE. (2018). *2018 National Drug Threat Assessment*. US Department of Justice – Drug Enforcement Administration. Retrieved March 6, 2019, from <https://www.dea.gov/sites/default/files/2018-11/DIR-032-18%202018%20NDTA%20final%20low%20resolution.pdf>. (Cit. on p. 8)
- US DEPARTMENT OF STATE. (2017, March 2). *International Narcotics Control Strategy Report: Volume I Drug and Chemical Control*. United States Department of State – Bureau of International Narcotics and Law Enforcement Affairs. Retrieved March 6, 2019, from <https://www.state.gov/j/inl/rls/nrcrpt/>. (Cit. on p. 8)
- US DEPARTMENT OF STATE. (2019, March 18). *International Narcotics Control Strategy Report: Volume I Drug and Chemical Control*. United States Department of State – Bureau of International Narcotics and Law Enforcement Affairs. Retrieved from <https://www.state.gov/j/inl/rls/nrcrpt/>. (Cit. on pp. 10, 13)
- WIEK, A., NESS, B., SCHWEIZER-RIES, P., BRAND, F. S., & FARIOLI, F. (2012). From complex systems analysis to transformational change: A comparative appraisal of sustainability science projects. *Sustainability science*, 7(1), 5–24. (Cit. on p. 37).
- YAZDANPANA, M., & FOROUZANI, M. (2015). Application of the Theory of Planned Behaviour to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production*, 107, 342–352. (Cit. on p. 53).
- YOUNG, K. R. (1996). Threats to biological diversity caused by coca/cocaine deforestation in Peru. *Environmental Conservation*, 23(1), 7–15. doi:10.1017/S0376892900038200. (Cit. on p. 10)
- YOUNG, K. R. (2004). Environmental and social consequences of coca/cocaine in Peru: Policy alternatives and a research agenda. *Dangerous Harvest: Drug Plants and the Transformation of Indigenous Landscapes*, 249–273. (Cit. on pp. 1, 11).



- ZUCCATO, E., & CASTIGLIONI, S. (2009). Illicit drugs in the environment. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 367(1904), 3965–3978. (Cit. on pp. 1, 13).
- ZUCCATO, E., CASTIGLIONI, S., BAGNATI, R., CHIABRANDO, C., GRASSI, P., & FANELLI, R. (2008). Illicit drugs, a novel group of environmental contaminants. *Water research*, 42(4-5), 961–968. (Cit. on pp. 1, 13).

## **A Appendix**

### **A.1 Critical realism**

Critical realism is a philosophy of science first conceived by Bhaskar (1975). It offers a middle ground between the paradigms of positivism and constructivism (Fletcher, 2017). In comparison to those, critical realism does not make the mistake of reducing ontology to epistemology, i.e. limiting 'reality' to what can be empirically known or to what is constructed within human knowledge, respectively (Bhaskar, 2013).

Critical realism acknowledges an 'objective' reality, i.e. the occurrence of events, whether observed or not (the 'actual' level (Fletcher, 2017)). These events manifest as social phenomena — i.e. human action — which can be experienced, observed and understood through human interpretation (the 'empirical' level (ibid.)). Underlying those, is the 'real' level of social structures, experiences and meanings (ibid.). They determine the object of critical realist research: causal mechanisms. Those are activity-dependent and 'exist only in virtue of the activities they govern and cannot be empirically identified independently of them' (Bhaskar, 1979, p. 48) (ibid.). Thus, causal phenomena can be understood through observable events or 'social products' at the empirical level (Fletcher, 2017).

The social product — i.e. human action — in question here is the consumption of cocaine. The IBM outlines a way to empirically capture and analyse individual human action, and shed light on the cocaine consumer's interpretation of their behaviour. It allows to identify common themes endorsed by different respondents, thereby permitting conclusions about the underlying processes of cocaine consumption. These represent the 'real' level here, where experiences are shaped and meaning is constructed. It is this level, which this study aims to understand to test the hypothesis of RQ2 and propose a means to influence cocaine consumption. The subject matter here, that is the interplay between the physical environment, social structures and human actors justifies the critical realist perspective.

## **A.2 Examples for TPB/IBM applications**

Legal drugs (alcohol and nicotine) have been most researched (e.g. Hanson (2018), Hasking and Schofield (2015), Jomphe and Boudreau (1999)), followed by cannabis (e.g. Fishbein et al. (2002), Morell-Gomis, Moriano, Laguía, Dias, and Lloret (2019), Patouris, Scaife, and Nobes (2016)), seldom ecstasy (e.g. Orbell, Blair, Sherlock, and Conner (2001)), and cocaine twice (cf. Booth, Stewart, Curran, Cheney, and Borders (2014) and Jesús (2009)) (cf. Ajzen (2019a)). Environmental behaviour has also been researched, be it pro-environmental behaviour in general (Staats, 2003), transport mode choice (Donald et al., 2014), purchasing organic foods (Arvola et al., 2008; Maloney, Lee, Jackson, & Miller-Spillman, 2014; Yazdanpanah & Forouzani, 2015) or recycling (Klocke & Wagner, 2000; Stoeva & Alriksson, 2017).

## **A.3 Public expenditure**

### **A.3.1 Drug treatment**

The EMCDDA (2017) quotes reports by 16 EU countries<sup>7</sup> that all drug-related expenditures amount to 0.01% and 0.5% of a country's GDP with drug treatment expenditure representing between 15% and 53% thereof. For the US, the Office of National Drug Control Policy (2004) states that health-related drug expenditures amount to 0.2% of GDP. In England and Wales, Class A drug use (e.g. heroin, cocaine, amphetamine ('Misuse of Drugs Act 1971', 2019)) resulted in costs of 0.1% of GDP in the fiscal year 2003/04 (Gordon et al., 2006). However, this information should be taken cautiously, since different countries' methodologies and definitions are not comparable (EMCDDA, 2017). Furthermore, UNODC (2011, p. 104) states that e.g. in England and Wales "“problematic drug users” [...] were responsible for 99% of the total drug use-related cost'. It can thus be assumed that the drug treatment-related costs linked to the casual cocaine consumer are negligible.

According to the EMCDDA (2017), drug treatment expenditure in 16 different European countries amounts to 0.0015%–0.265% of a country's GDP. Similar numbers are being reported for the US (Office of National Drug Control Policy, 2004). However, this information should be taken cautiously, since different countries' methodologies and definitions are not comparable EMCDDA (2017). Furthermore, UNODC (2011, p. 104) states that e.g. in England and Wales "“problematic drug users” [...] were responsible for 99% of the total drug use-related cost'. It can thus be assumed that the drug treatment-related costs linked to the casual cocaine consumer are negligible.

### **A.3.2 Supply reduction**

Expenditures for supply reduction policies include costs of prisons, custom, police and the judicial system (Bretteville-Jensen et al., 2017). Reports from 16 EU countries<sup>7</sup> estimate the costs for supply reduction to between 35% and 82% of total drug-related expenditure (ibid.). Yet, these are rough estimates, building upon different statistics and methodologies, since most of the costs are unlabelled costs and thus nowhere to be found explicitly (ibid.). In the US, the budget for Federal Drug Control is requested for by the President and consequently labelled. In 2019 it amounts to US\$ 29.9 bn of which around US\$ ~16 bn are allocated to the four abovementioned sectors ('22. Federal Drug Control Funding', 2018). According to McNamara (2011), it is estimated that the federal states annually spend additional US\$ ~30 bn on justice-related drug war expenses. Since the declaration of the War on Drugs, the US spent more than US\$ 2.5 tn on it. Some of this money is also funding the War on Drugs in Colombia and Mexico. These countries pay 1.1% of their GDP (Colombia) or US\$ 5.4 bn (Mexico) for drug policing per year (Lakhani & Tirado, 2016; Mejia, 2015).

---

<sup>7</sup>Belgium, Croatia, Cyprus, Czech Republic, Finland, France, Germany, Hungary, Italy, Latvia, Luxembourg, Netherlands, Portugal, Slovakia, Sweden, United Kingdom

### **A.3.3 Demand reduction**

Data for demand reduction policies in the EU, e.g. costs for drug-related education and research, addiction consulting, public health, substitution programmes, social rehabilitation, workforce reintegration and prevention measures etc. are labelled in many countries (EMCDDA, 2003). However, since responsibilities are often spread between municipalities, states, national entities, NGOs and societal actors like churches expenditures are similarly spread. The 2003 compilation of costs is the most recent available.

Amongst 14 EU countries<sup>8</sup> drug demand reduction policies amounted to annual costs between € 17 and € 466 million in 1999 (ibid.). As with the data above, comparability between countries is limited by different policies, definitions and methodologies. Yet, for most of the countries a major part of allocated funding is spend on high-frequency users (ibid.). As with drug treatment-related costs, it can consequently be assumed that the impact of the casual cocaine consumer is insignificant.

### **A.3.4 Productivity losses**

The biggest part of drug-related costs are productivity losses through premature deaths, drug abuse-related illnesses, institutionalisations/hospitalisations, productivity loss of victims of crime, incarceration and the choosing of crime careers (UNODC, 2011). In the US productivity losses amounted to US\$ 128.6 bn in the years 1992-2002 representing 71% of all drug-related costs (Office of National Drug Control Policy, 2004). Productivity losses reduce tax income which could otherwise be spent for other purposes (Office of National Drug Control Policy, 2004; UNODC, 2011). Albeit, it is chronic users, who form the group of people responsible for most of the health-related costs (UNODC, 2011, 2016), not casual cocaine consumers. Their role in productivity losses can therefore be considered insignificant.

---

<sup>8</sup>Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, United Kingdom

#### **A.4 Reasons for cocaine consumption**

The interviewees take it, because it is 'exciting and interesting' (R2), 'reduces barriers' (R3), is 'simply awesome and you're staying awake for longer' (R9) and have a lot of energy (R1, R2, R3, R6, R7 and R10), because it enhances their temper (R3 and R7) and makes them talkative (R4 and R7), and they feel good and it's fun (R1 and R10).

## **A.5 Details about descriptive norm**

Taking cocaine is often initiated by a 'polite question' (R6) or someone in 'the group proposing it' (R2). R6 said, it's usually 'not consumed in front of people who do not want to take it in that moment. Sure, in the club you go to the toilette, but also with a group of friends, you would rather seclude yourself [...] so as not to disturb the others'.

## **A.6 Details about subjective norm**

The questions for SN were on the one hand enquiring about the reaction to saying no in the moment and on the other hand to the reaction to the long-term intention not to take cocaine anymore. The momentary reaction was described as the reaction to an 'entirely legitimate wish' (R6) and as 'okay' (R3, R5, R6, R7, R9) even 'minimally appreciative' (R7). R8 stated that 'no one would try to persuade him' to change their mind. R2 said that saying no is 'easily possible'. R1 and R10 experienced sympathetic understanding. No interviewee reported peer pressure coercing them to consume.

The majority of the respondents assumes a neutral or slightly positive reaction of their peers to uttering the intention of lowering their cocaine consumption. R5 thinks it would be taken 'relatively positive'. R2 describes the reaction as 'neutral, probably positive'. R8 expects it to be 'probably positive or at least okay' and R1 thinks her peers would appreciate it. According to R5, R6 and R7 it would be completely okay, the reactions would be 'neutral' (R6, R7). R3 assumes it to be 'completely tolerated'. R9 expects a 'curious, not judgemental "why?"'. However, R10 thinks his peers might react irritated, yet not judgemental, 'rather as if you'd say you're vegan'.



### **A.7 Details about the salience of saying no in the moment of the offer**

The decision leading to cocaine consumption is different from person to person. For R8, R9 and R10 taking cocaine is linked to specific events and is as such the result of longer term planning. However, R9 mentions that sometimes, when it is offered to him, he reacts 'impulsively'. For R1 the decision to take cocaine is always like that. R3 states that it is sometimes impulsive and sometimes the result of a weighing of reasons. R5 and R7 state that they are always weighing reasons in the moment it is being offered to them. R2, R4 and R6 decide whether they want to take cocaine before going out or meeting friends. If not, they usually stick to their decision during the night. If so, they react impulsively to offers of cocaine.

## **A.8 Declining an offer of cocaine**

Not taking cocaine is a reported behaviour of all respondents. Since R8, R9 and R10 plan their consumption beforehand, they usually decline offers outside planned occasions. The same applies to R2, R4 and R6 who make a reasoned decision per occasion, which results in the denial of offers, if they decided against taking cocaine beforehand. R7 suspects he declines ca. half the offers he is being tendered. R1 said, she has already sometimes declined an offer, yet usually she takes it.

## **A.9 Responsible consumption**

The environmentally or socially conscious behaviour reported by the interviewees ranges from reduced meat consumption (R2, R4, R5, R6, R7), over regional food purchasing (R2, R4) to reduced plastic packaging (R1, R4, R5, R7, R9), only second hand clothing (R5), reduced flying (R1, R3, R4, R10), increasing use of public transport (R6, R7, R9) and the reduced usage of water, electricity and heating (R1, R5).

### **A.10 Information seeking**

All respondents except R8 stated that they actively seek or sought information before trying out new drugs. R8 explained, that he tried most substances in a time before internet use was common so he had to rely on personal accounts from acquaintances and does not see reason to begin informing himself now after years of drug use. All other respondents stated the information they are actively looking for is mainly about personal medical effects and consequences. The legal situation was only mentioned by R3 and R7 and declared as minor interest. Only R3 and R4 stated to have actively sought information about the origin and production of drugs. R6 stated that he watches documentaries about cocaine, yet mostly for entertainment purposes.

### **A.11 Perceived media reporting**

The respondents' opinions of the media's handling of drugs are diverse. Media coverage of drugs is perceived as one-sided (R2, R6), critical (R3), negative (R5, R8), undifferentiated (R5) and unreflective (R10) but also rather neutral (R4) and 'not exaggeratedly stigmatising' (R7). Many respondents see information in the media about drugs in general and cocaine specifically as insufficient or inadequate. The dominant topics seem to be drug-related crimes and drug seizures (R2, R5, R6, R7, R8) with a focus on national and local consequences (R2, R5). Only R7 mentioned cartell crimes. R7 and R10 think media is moralising drugs. R8 and R10 said drugs are 'demonised' and presented as 'only bad'. With a focus on the addictive risk and potential health issues, R3 perceives media as 'very much centered on caution'. R8 thinks current drug education is not expedient and does not give sufficient information to take informed decisions about drug consumption. R6 and R10 mentioned the Global Drug Survey and accompanying reporting as good step into the right direction.