



(UN)LIMITED OPPORTUNITIES?

ACCESS AND PARTICIPATION OF STUDENTS WITH DISABILITIES AT THE UNIVERSITY OF TWENTE.

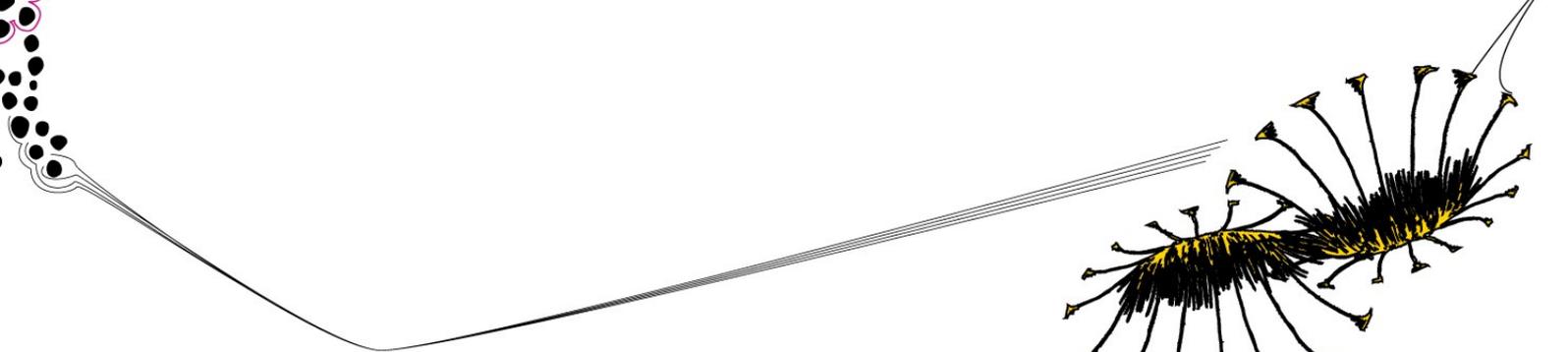
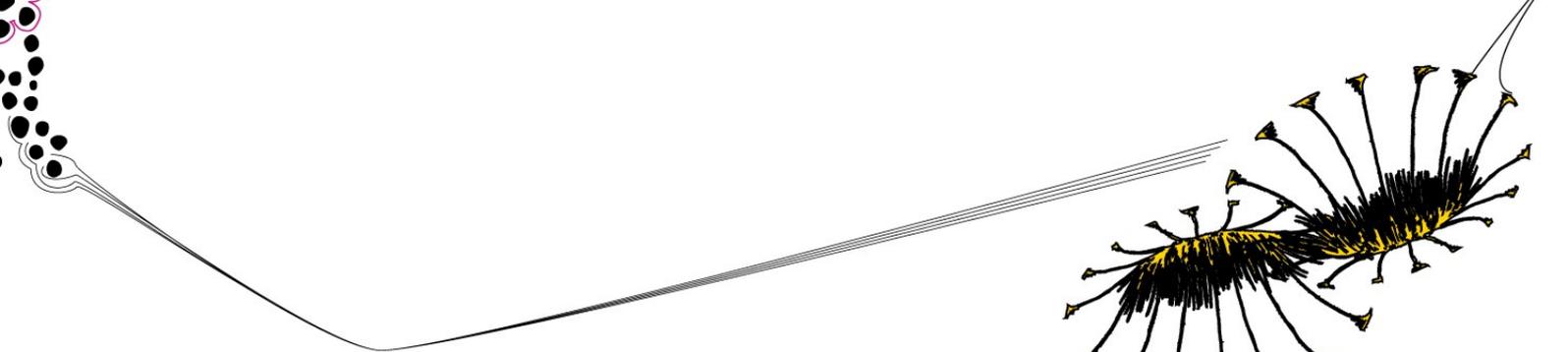
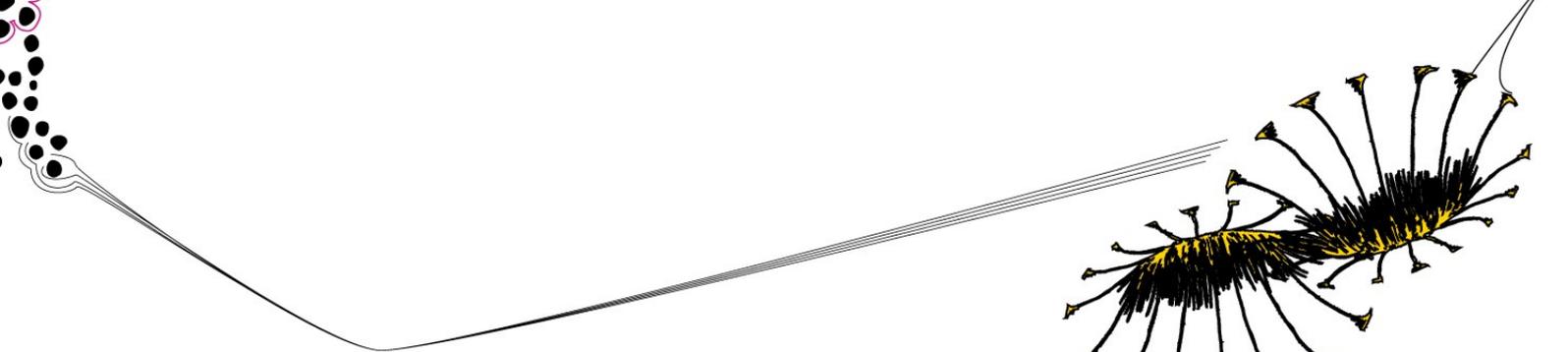
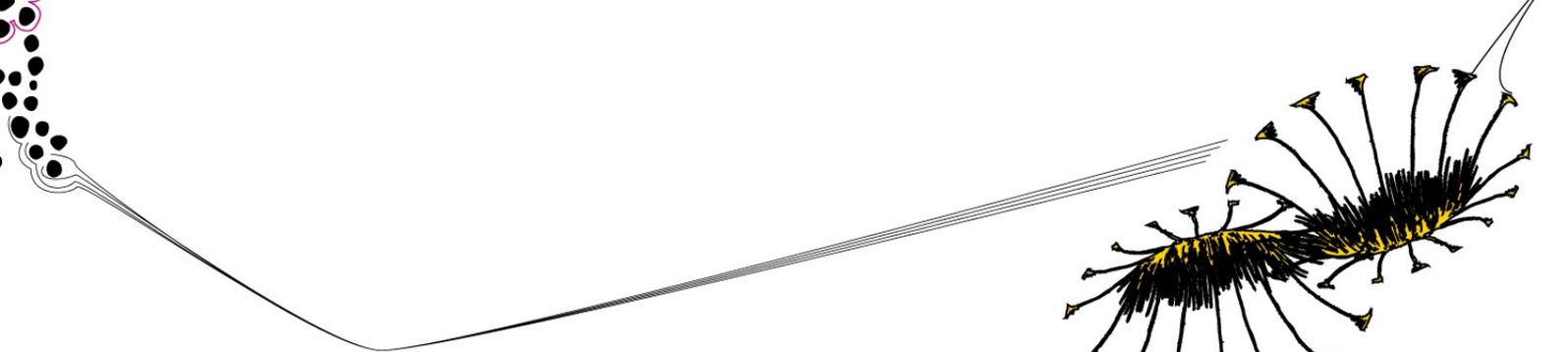
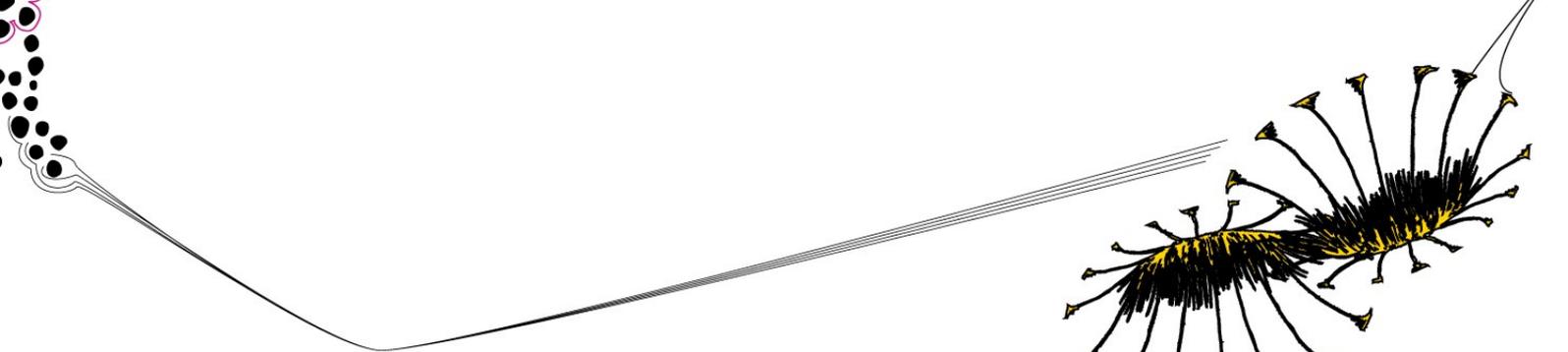
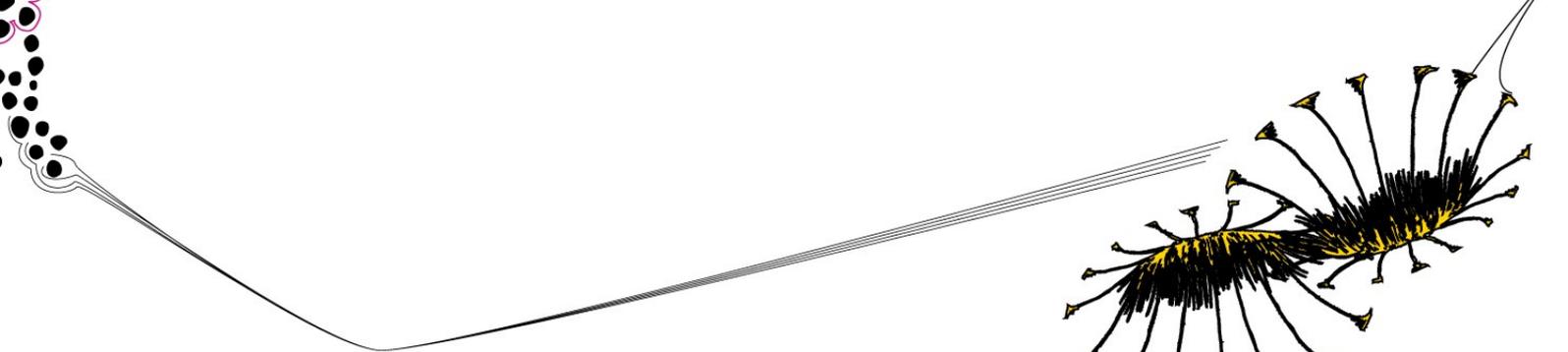
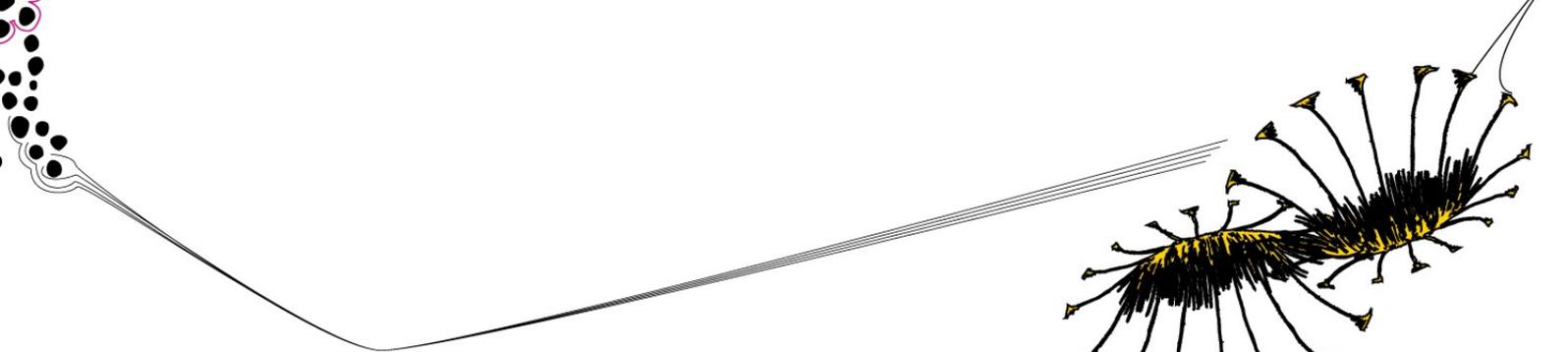
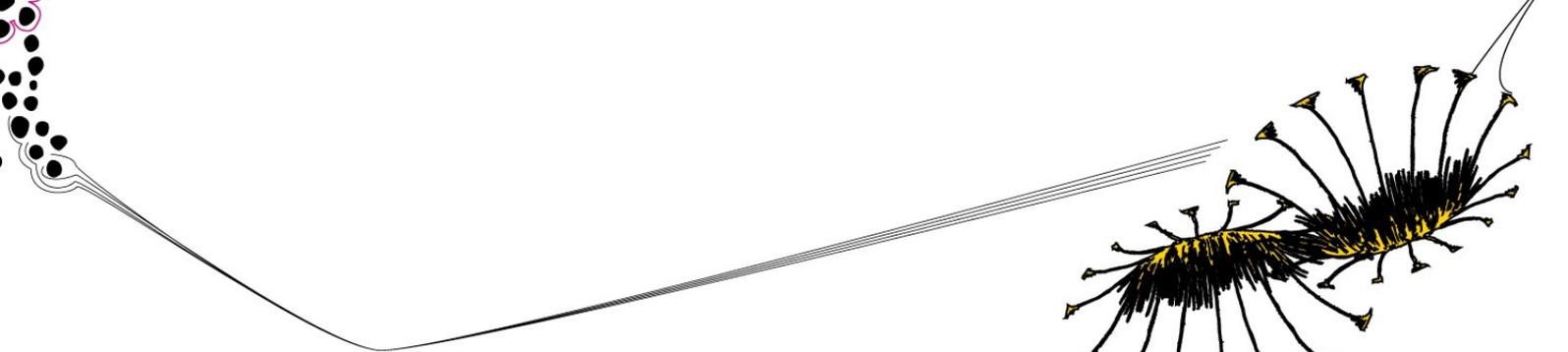
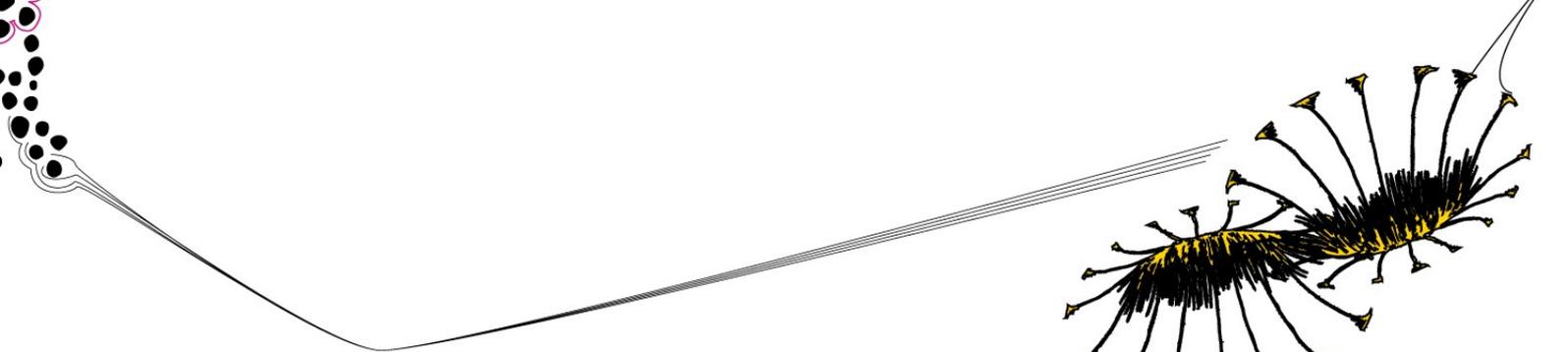
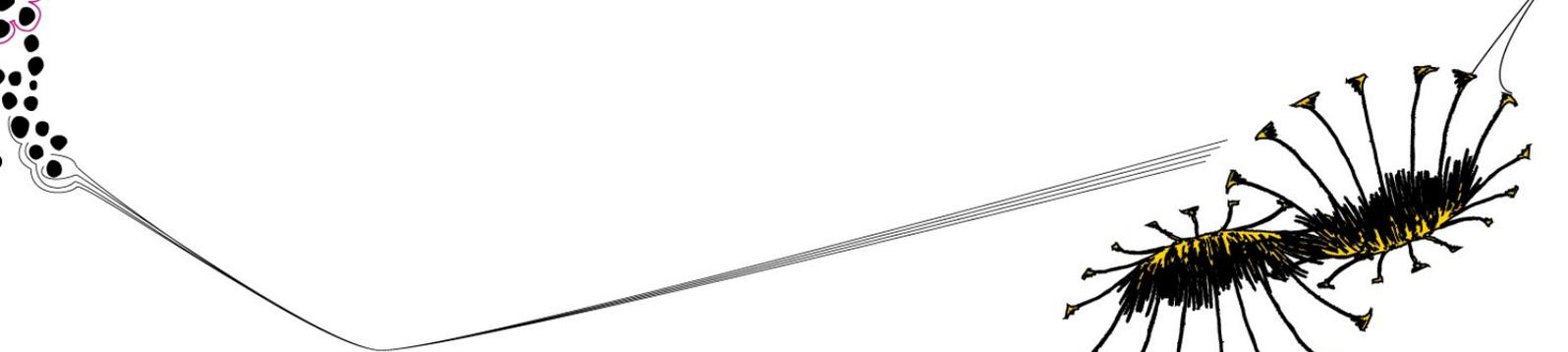
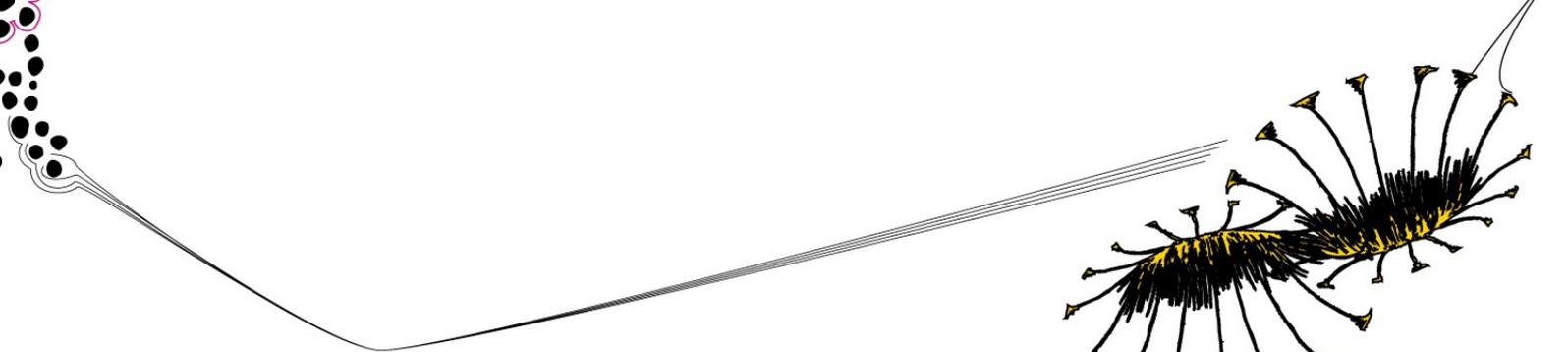
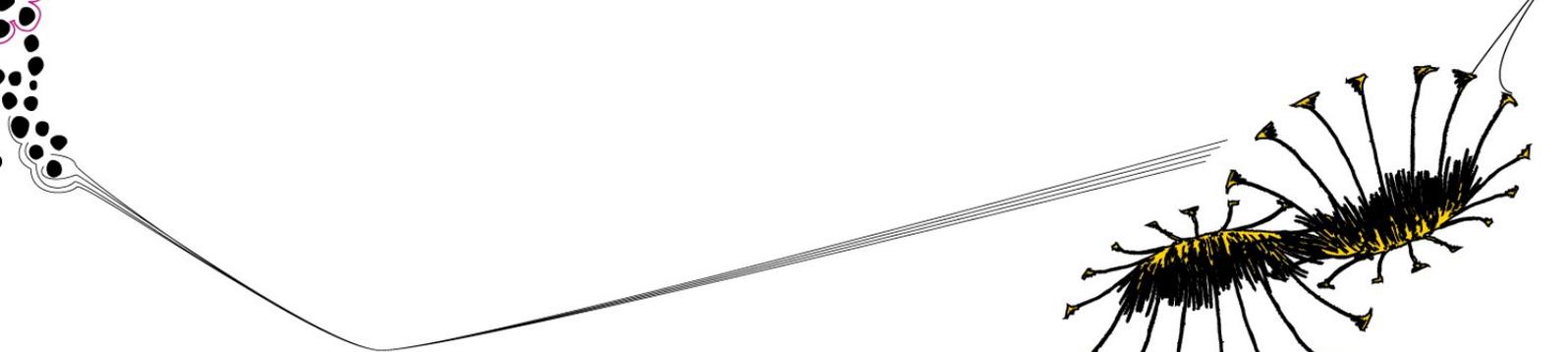
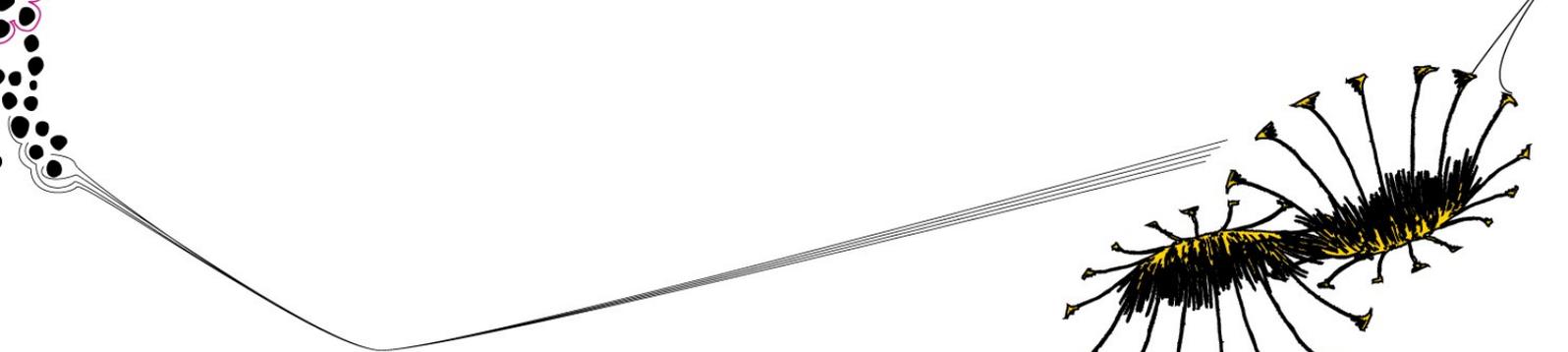
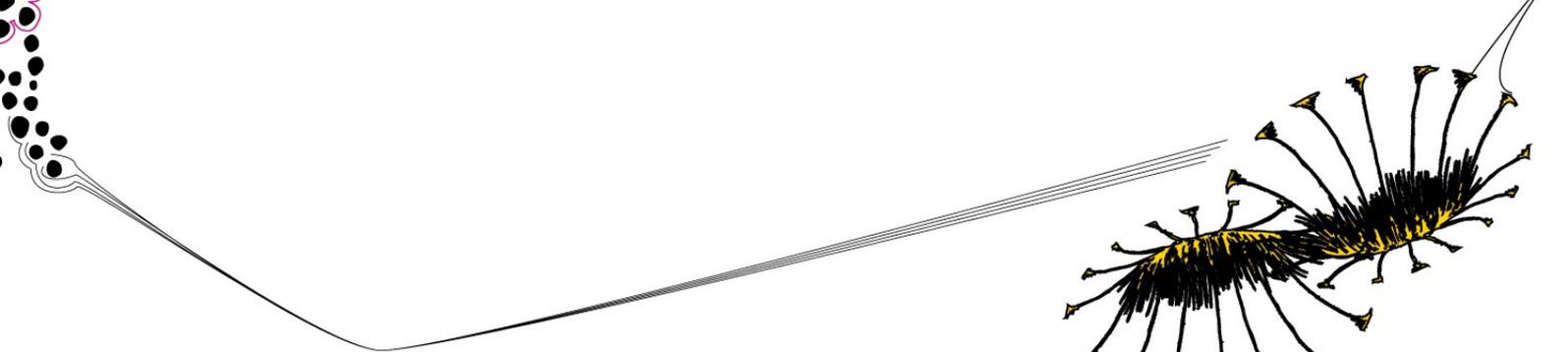
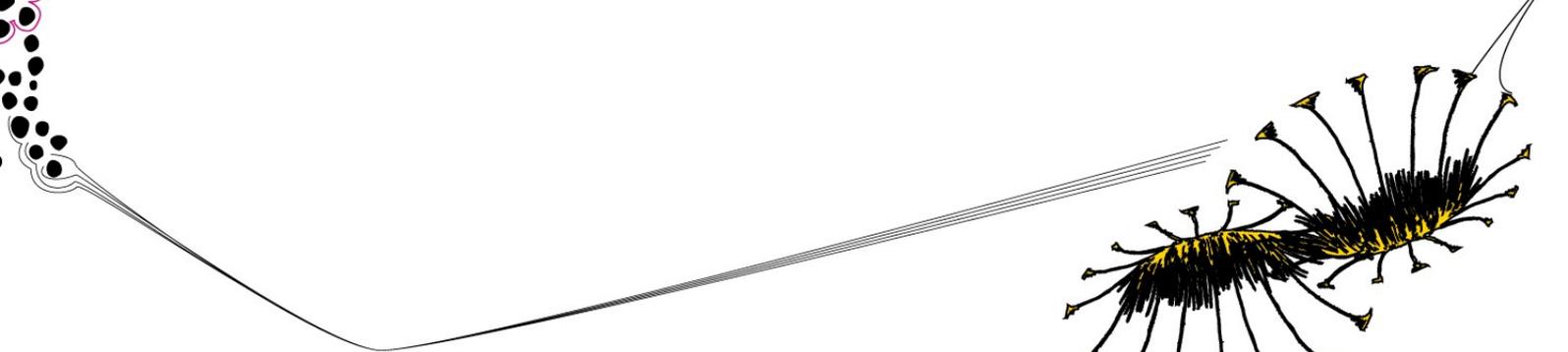
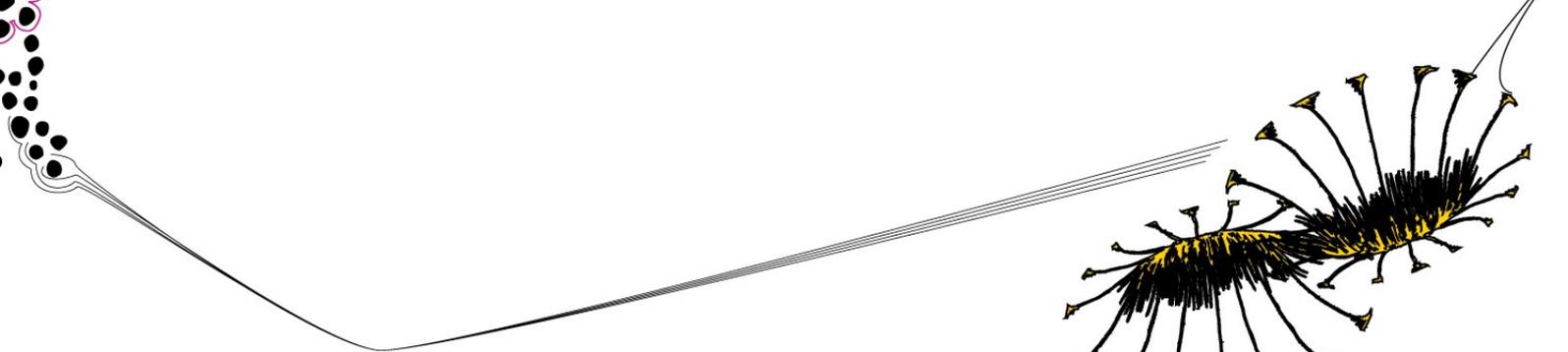
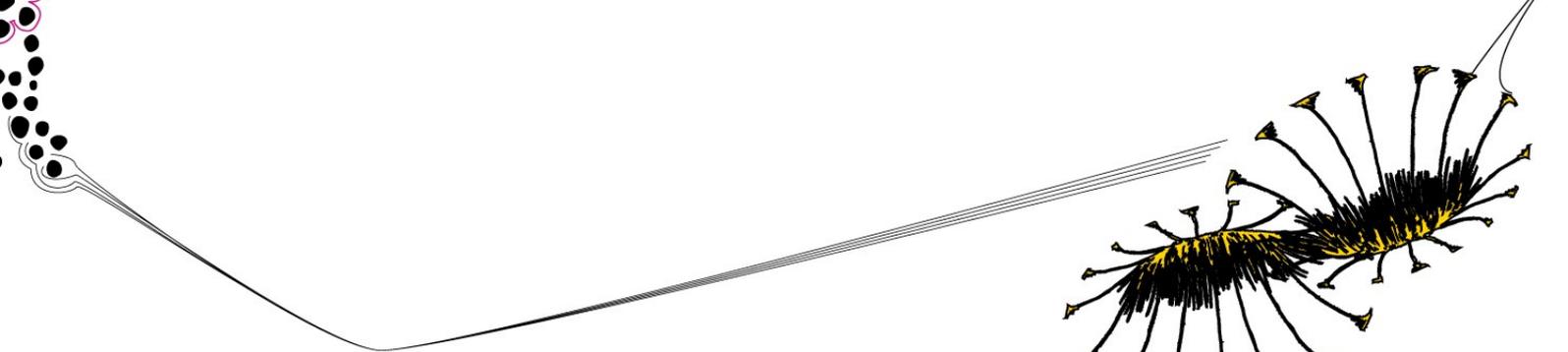
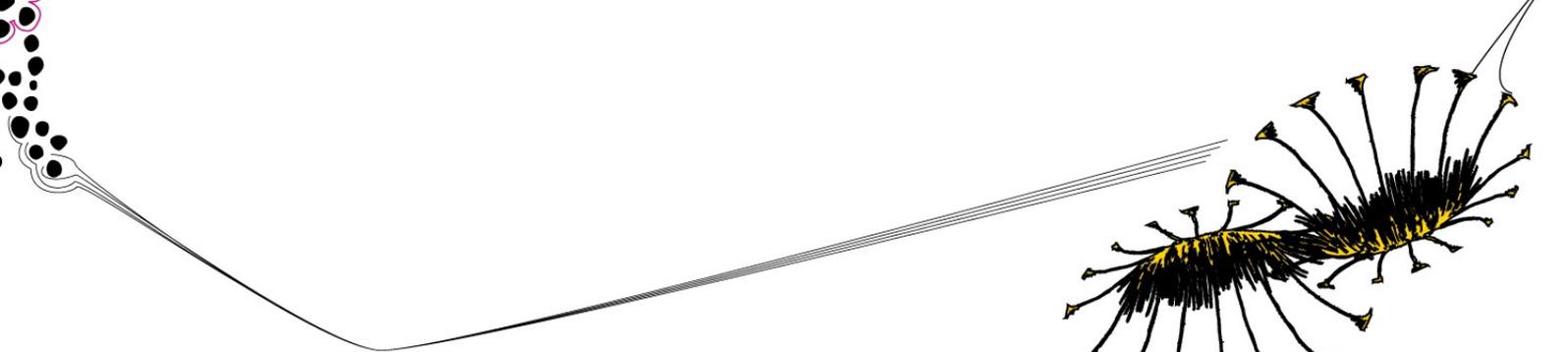
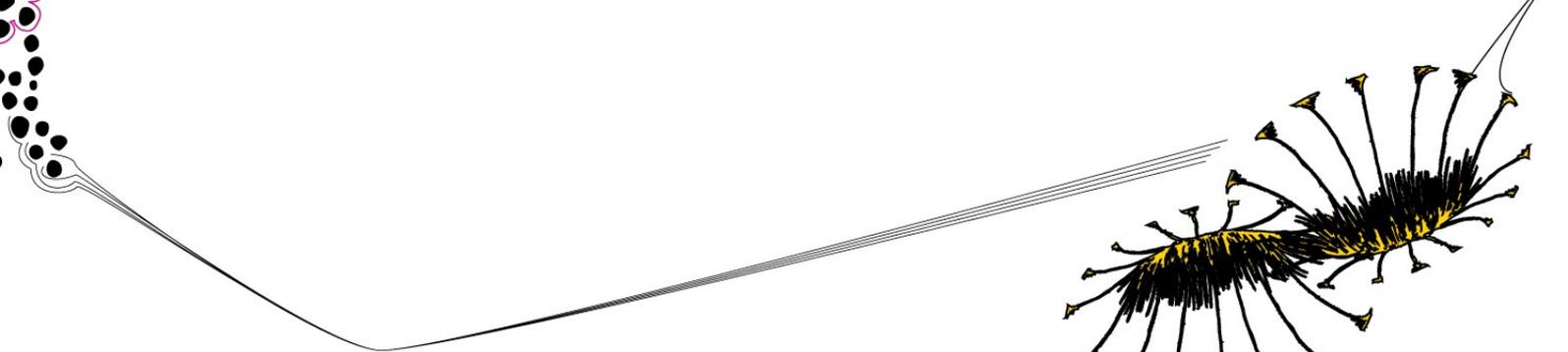
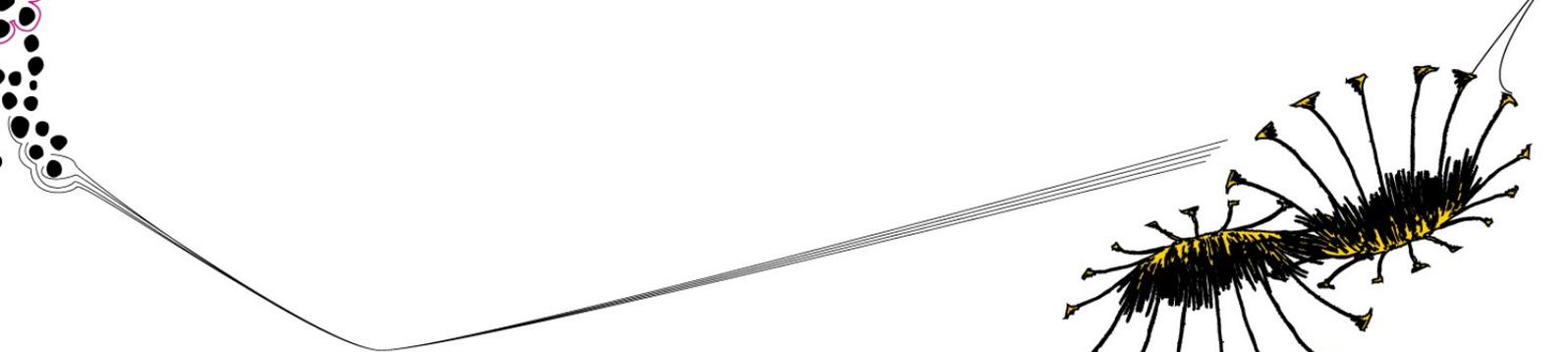
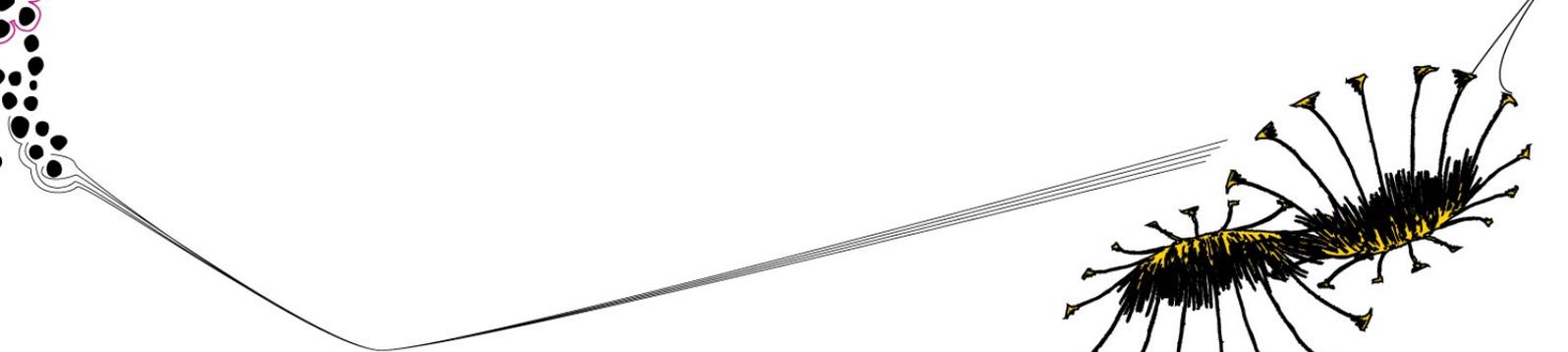
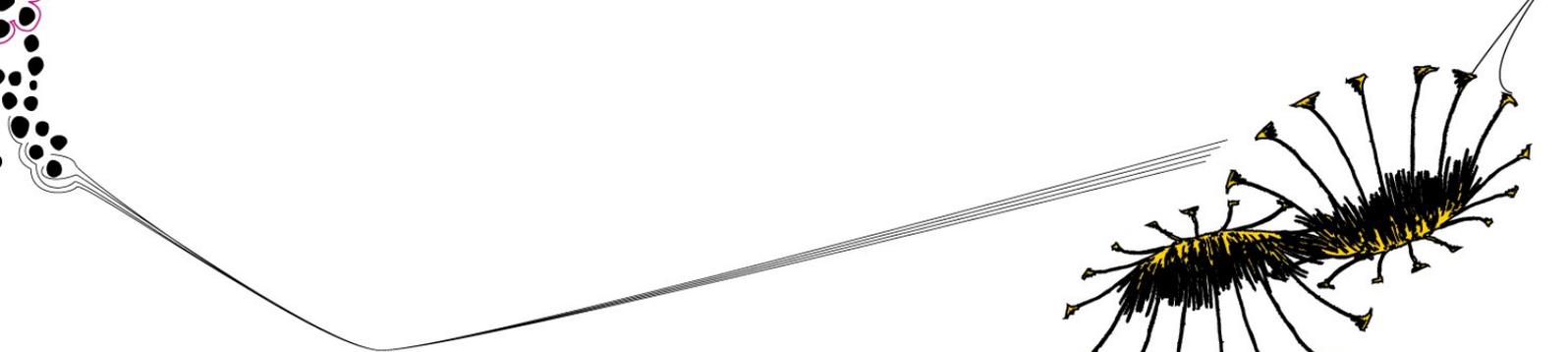
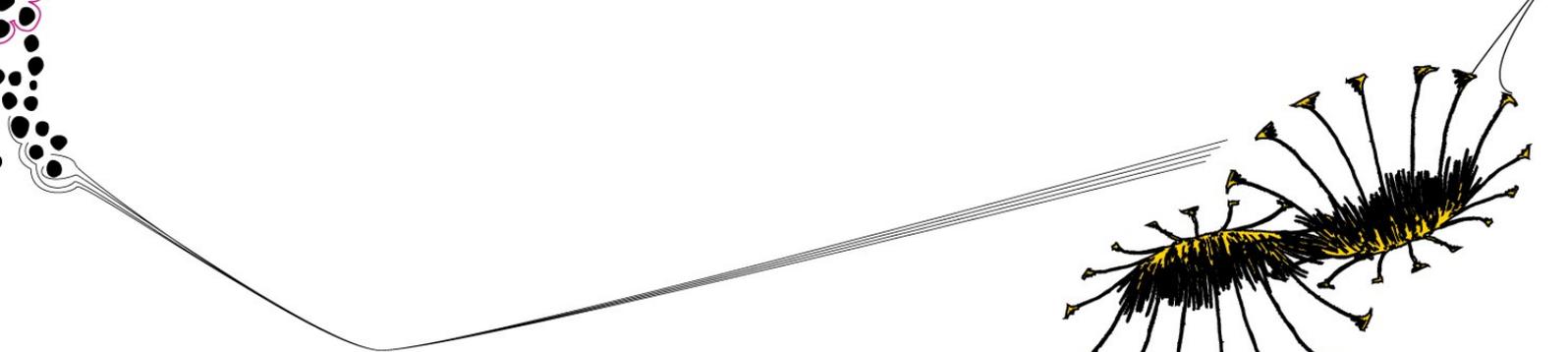
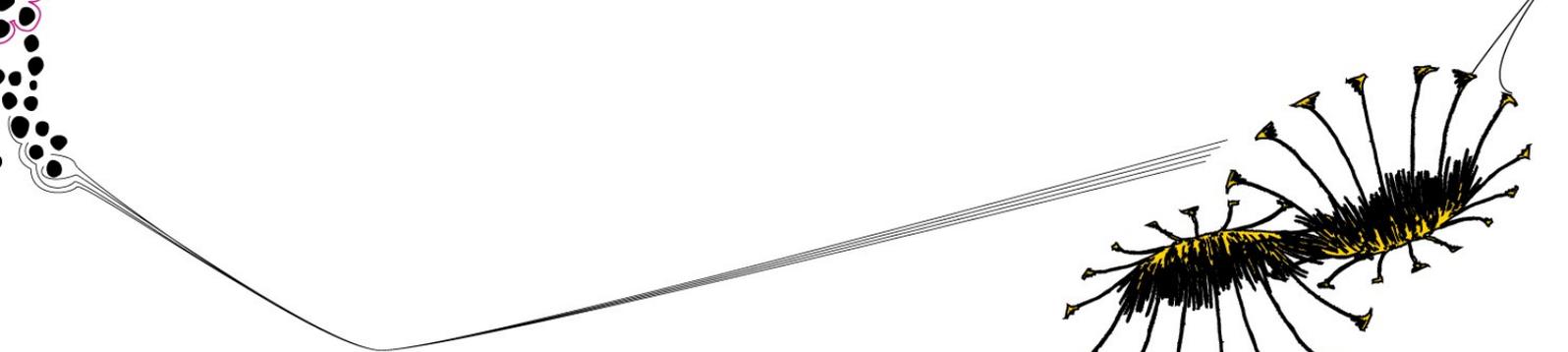
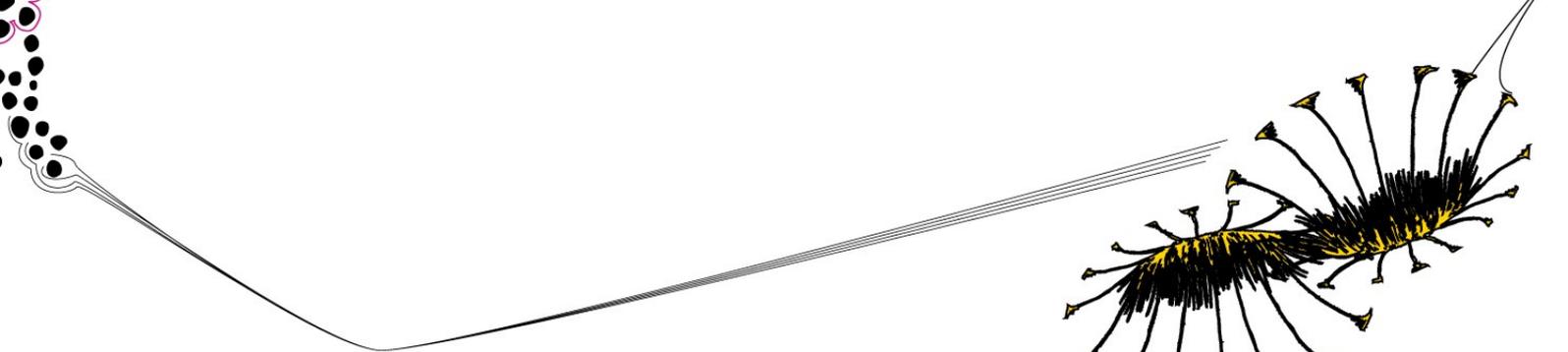
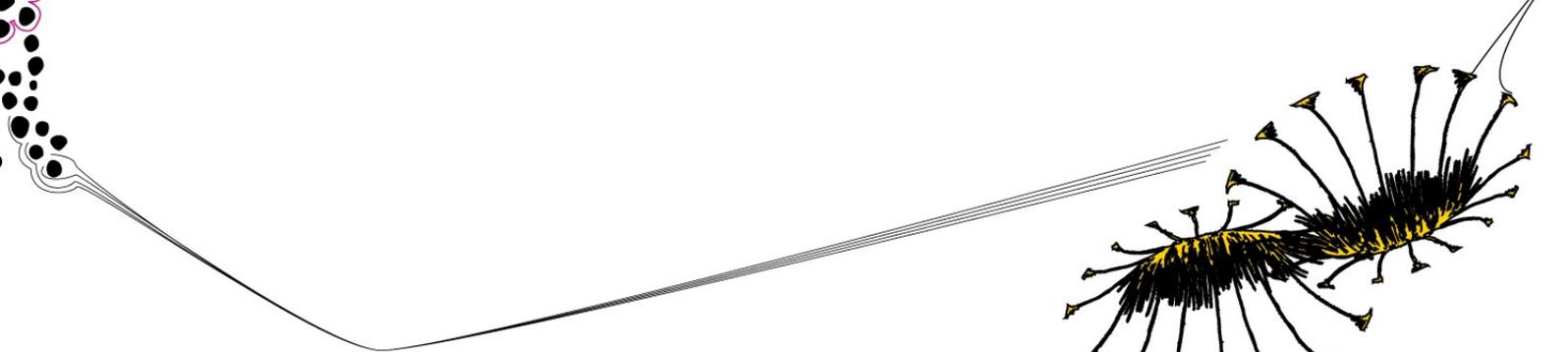
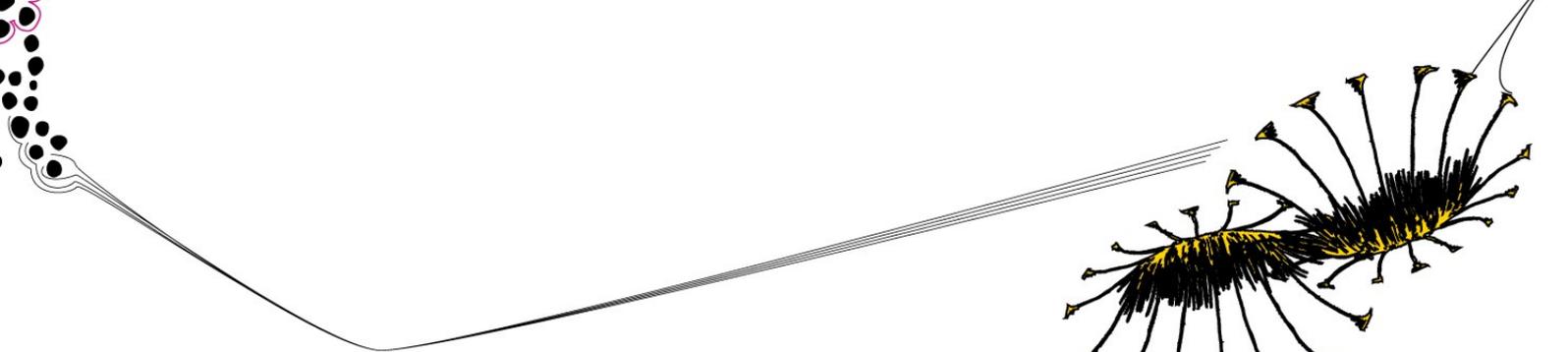
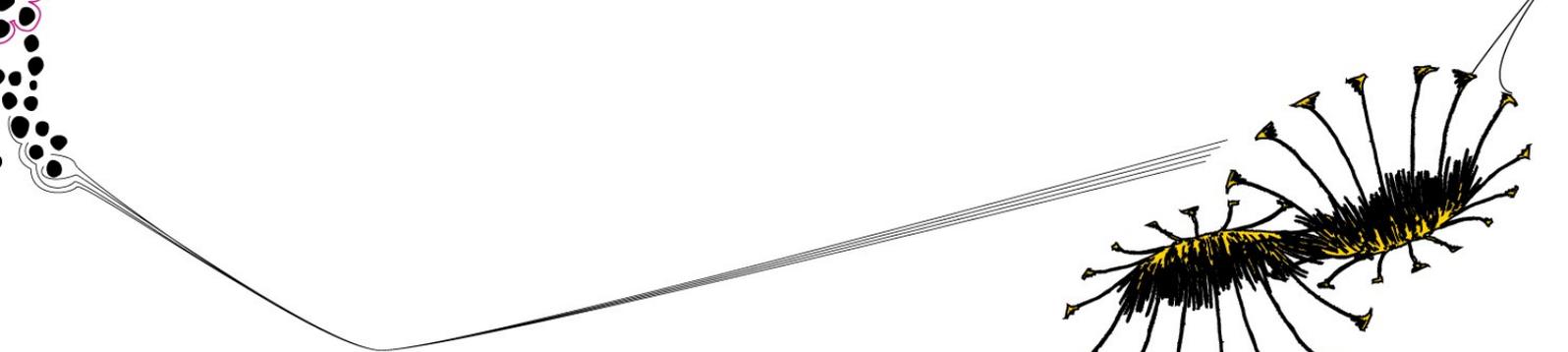
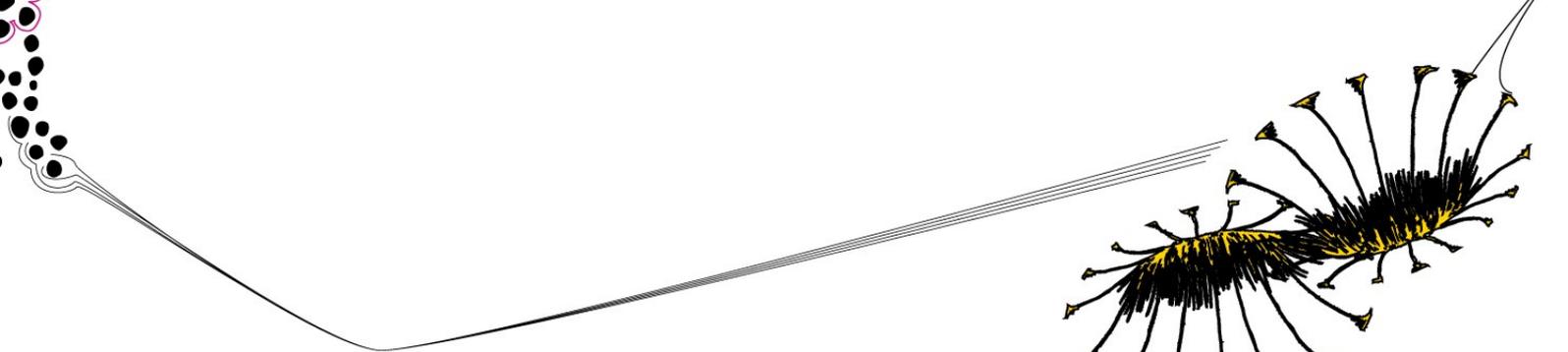
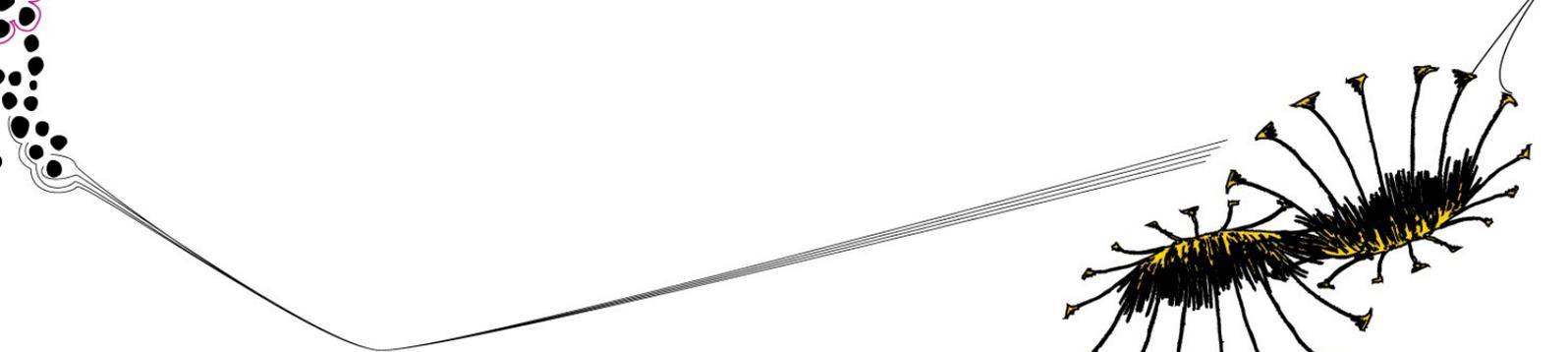
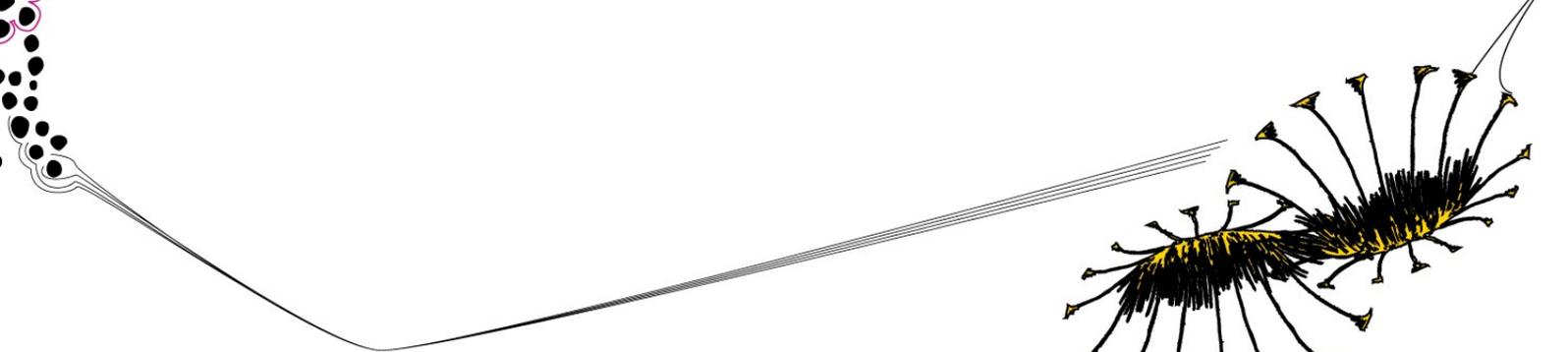
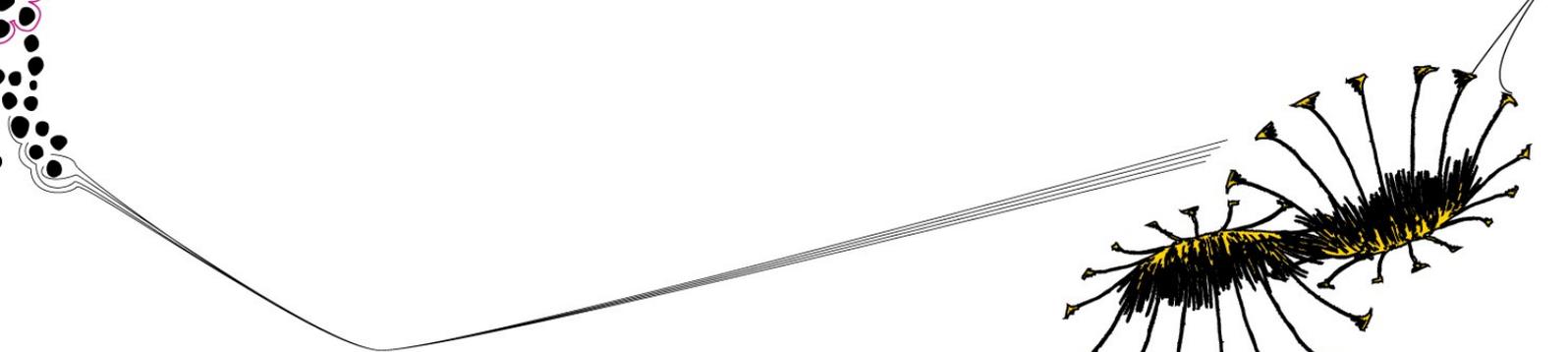
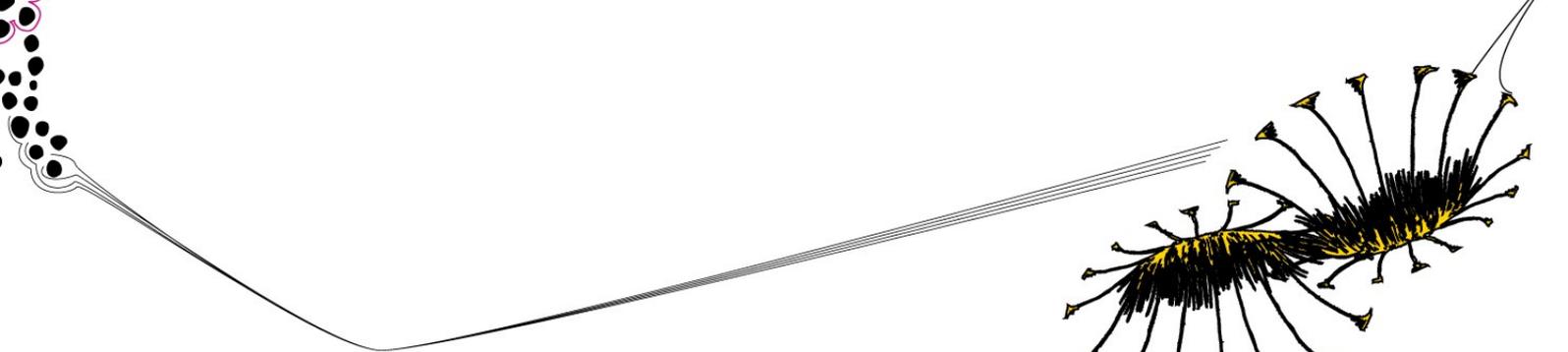
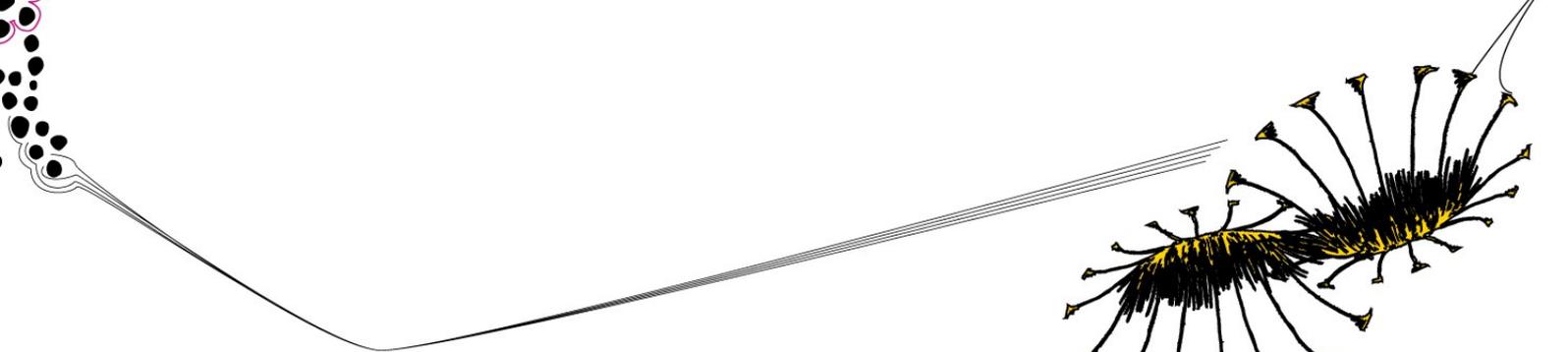
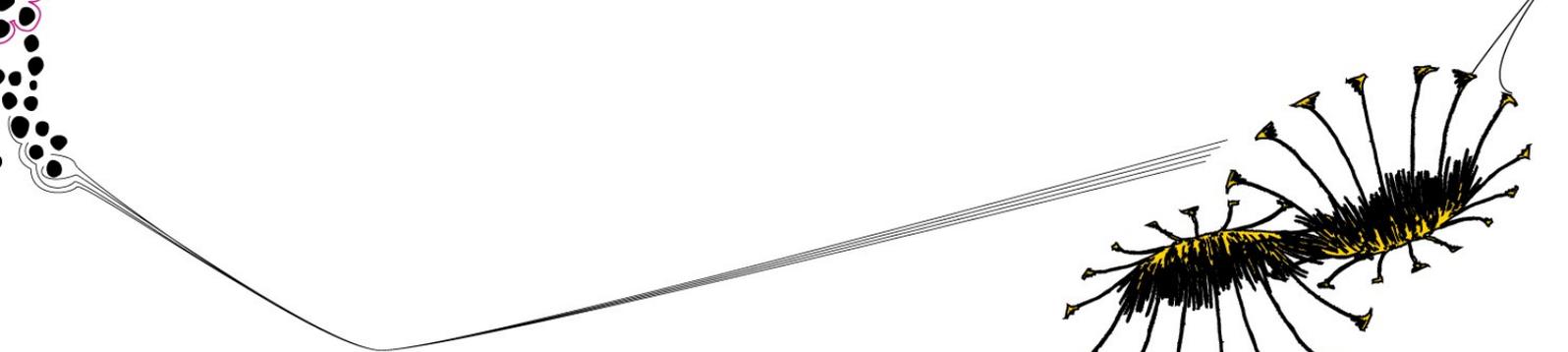
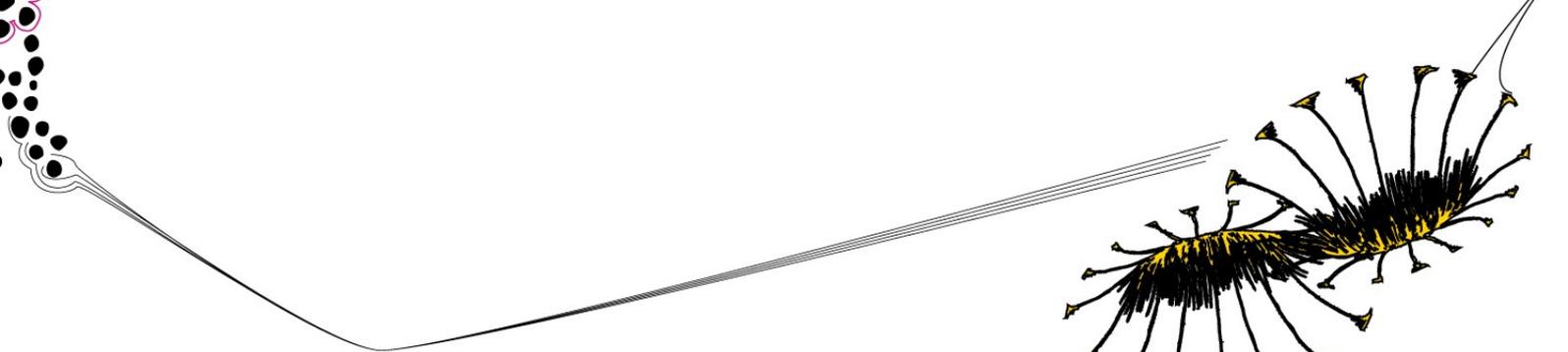
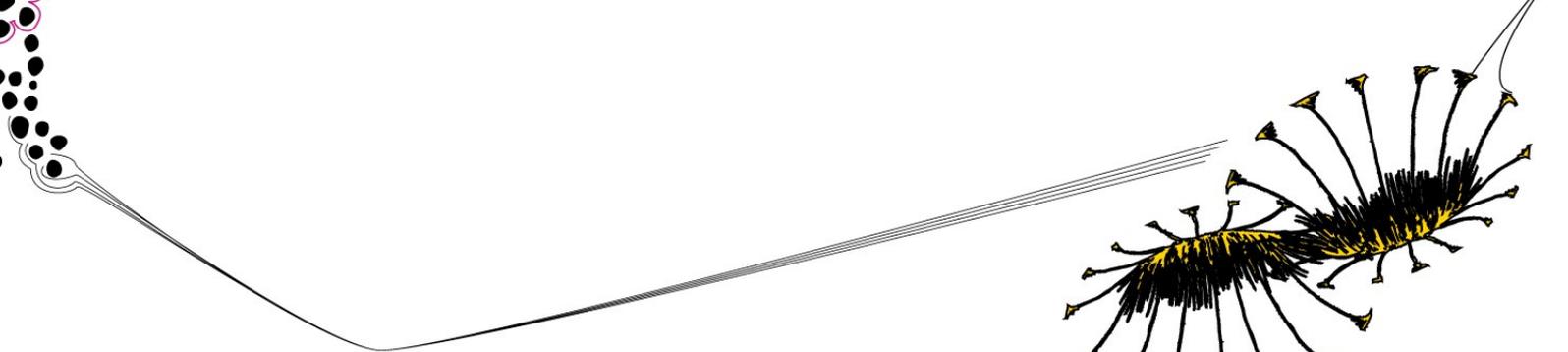
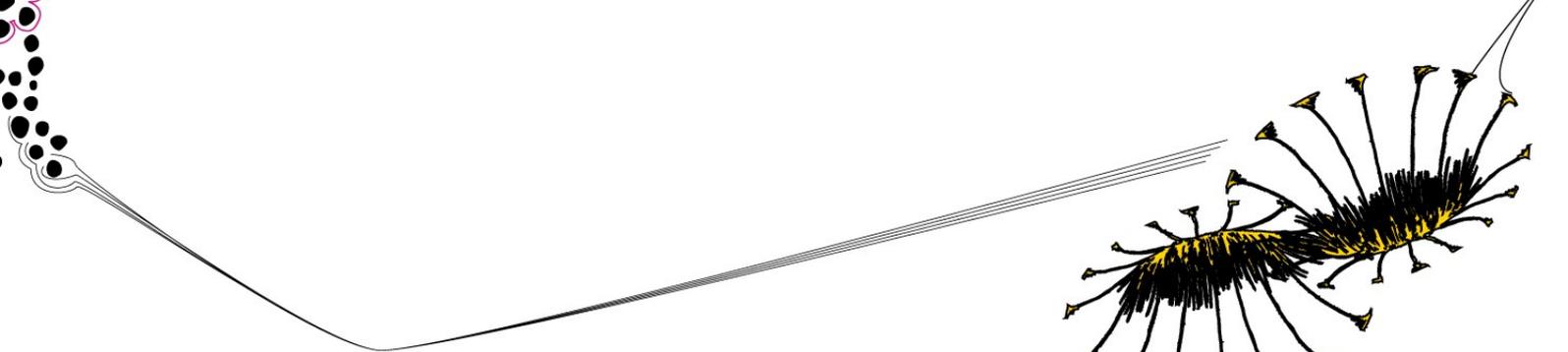
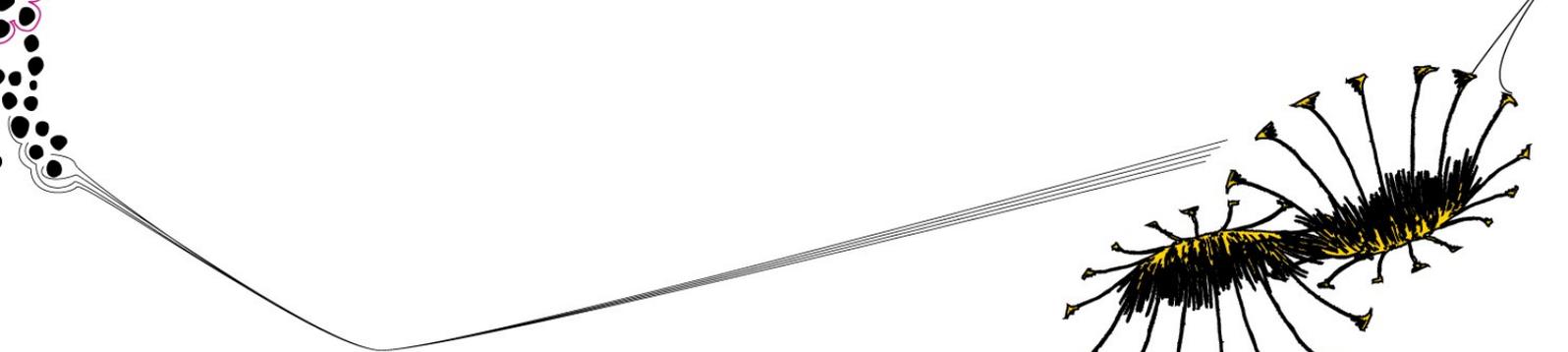
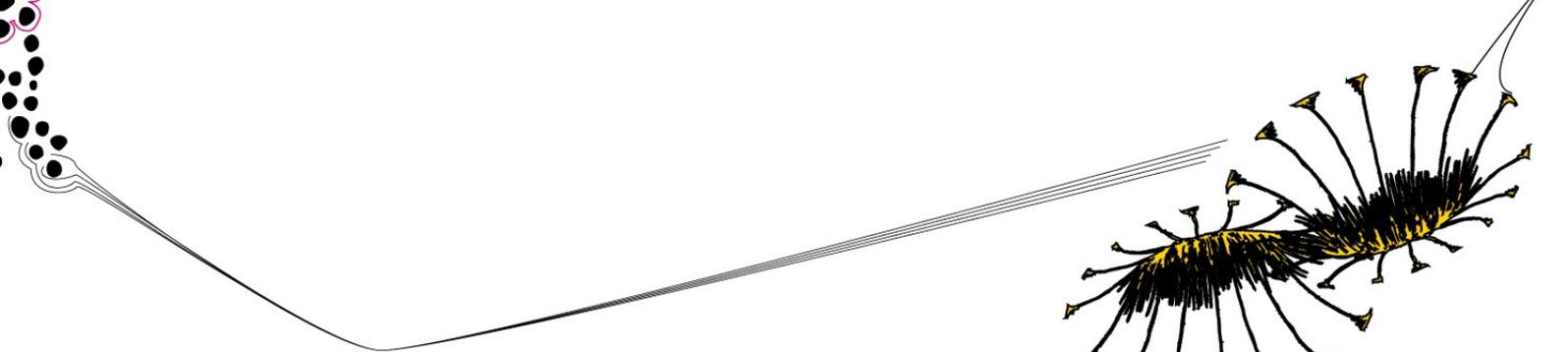
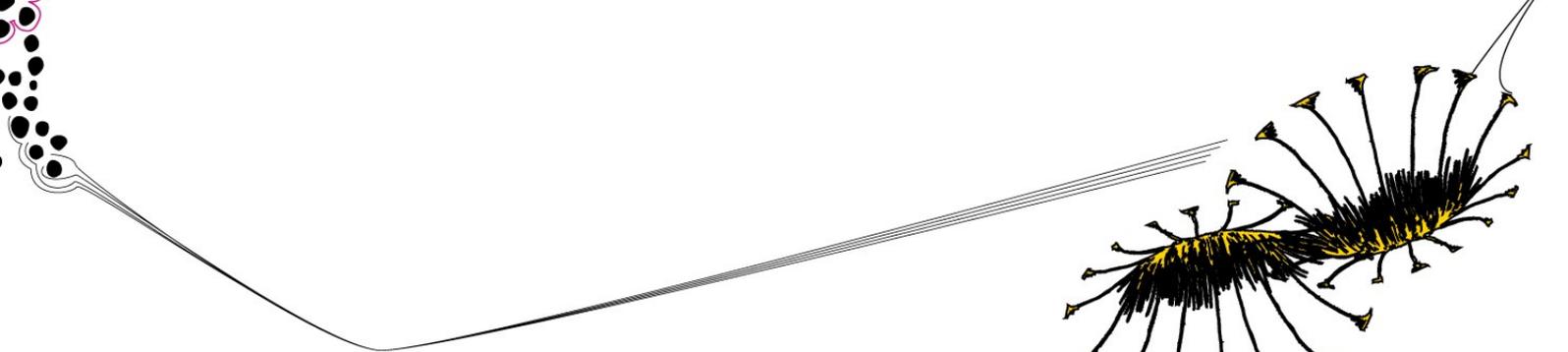
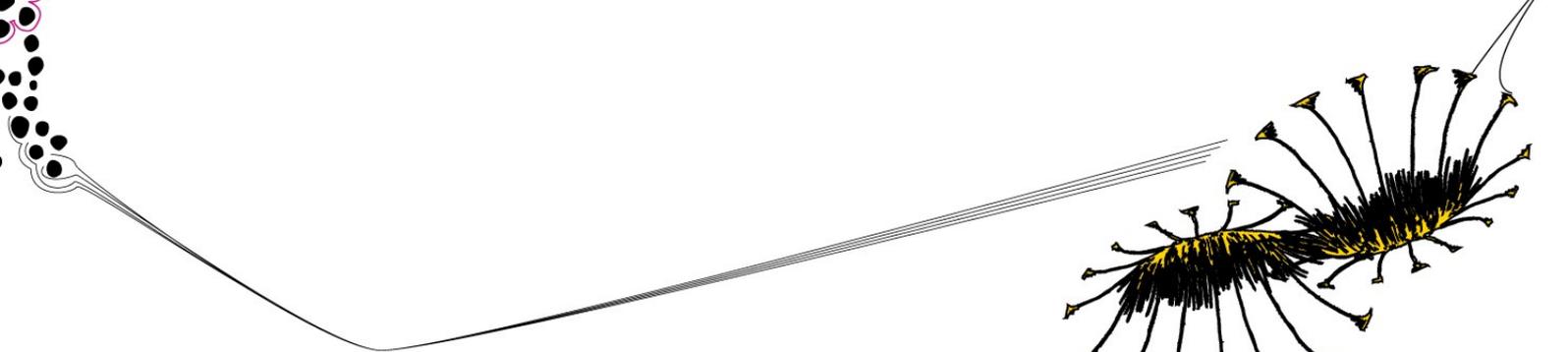
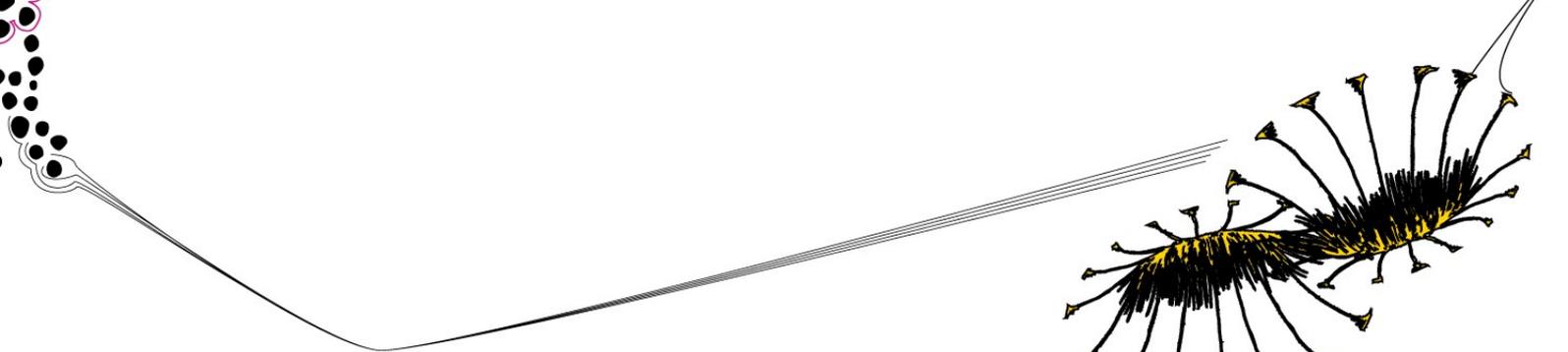
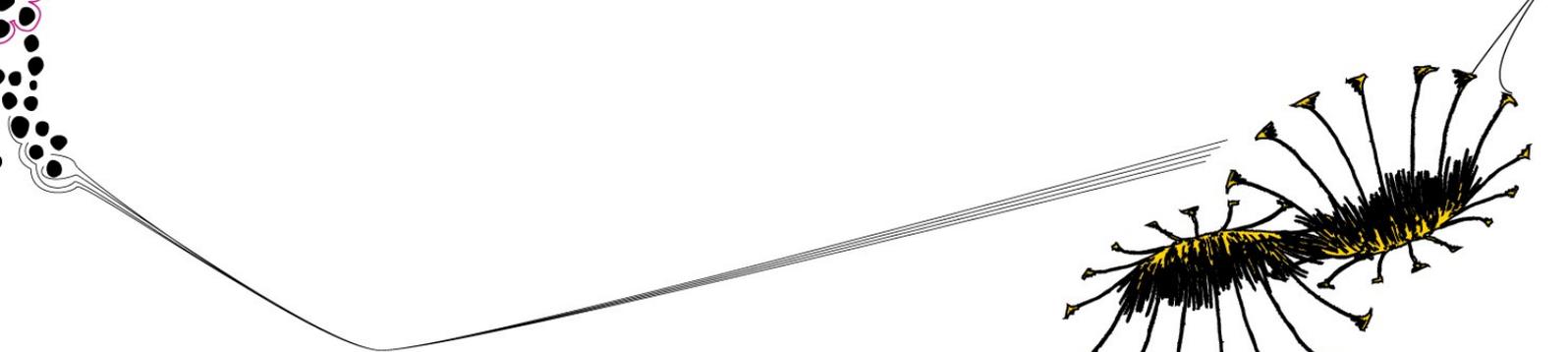
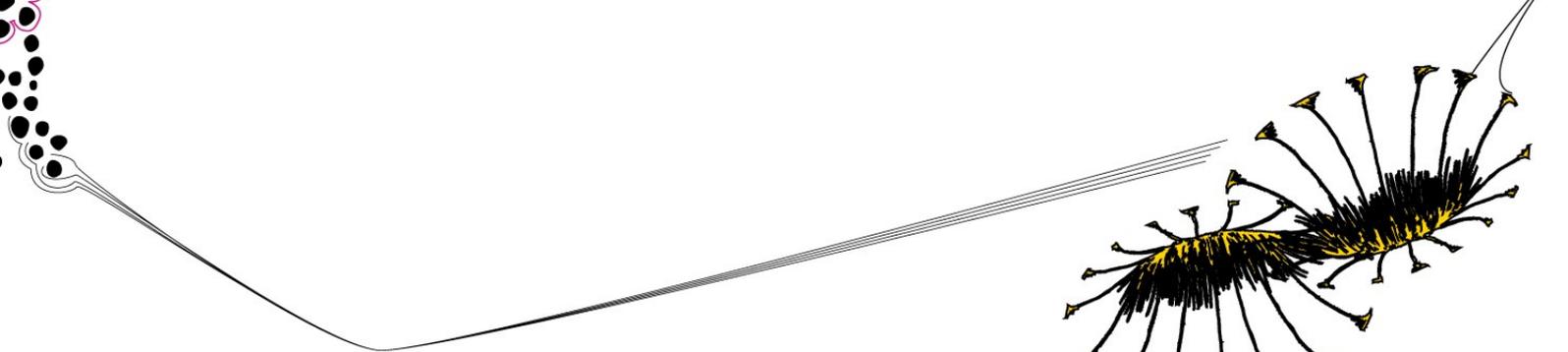
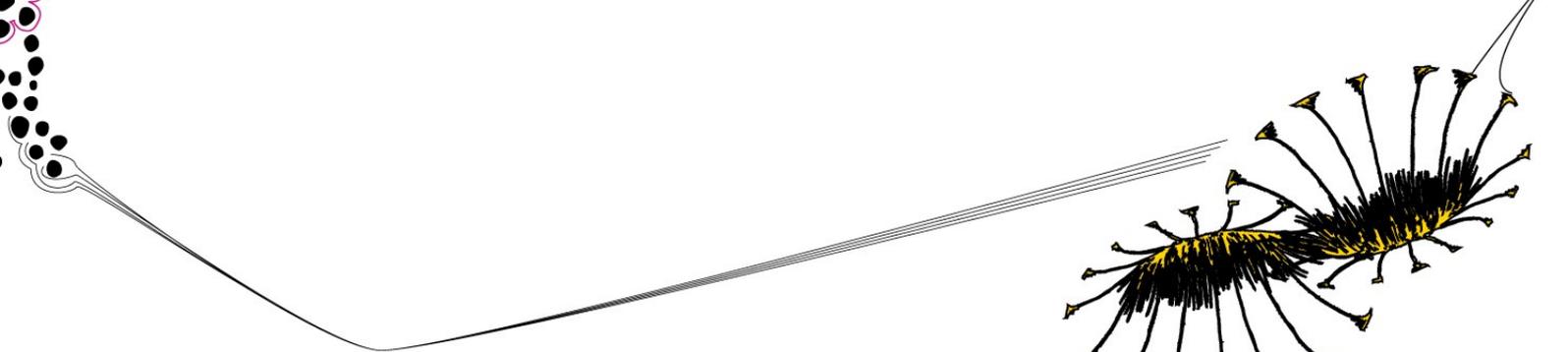
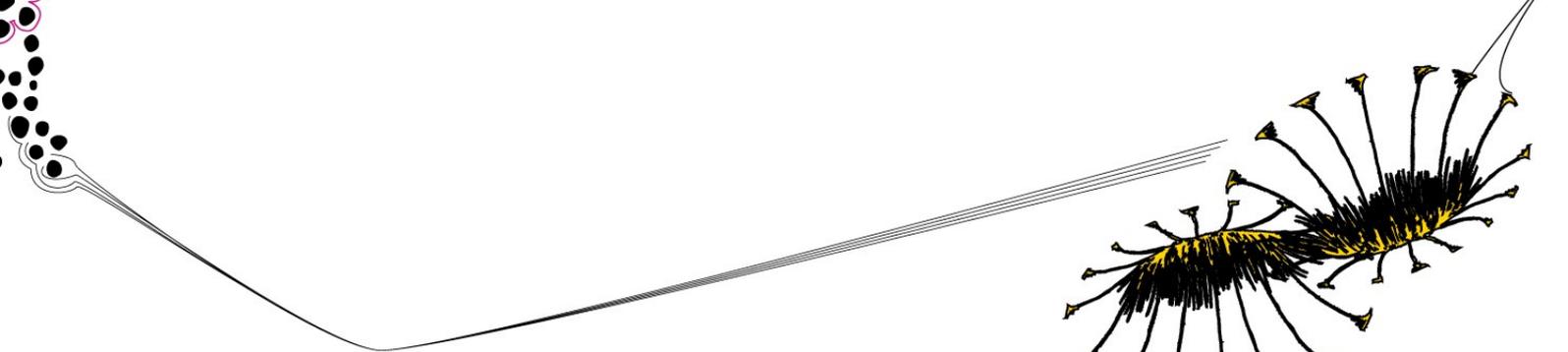
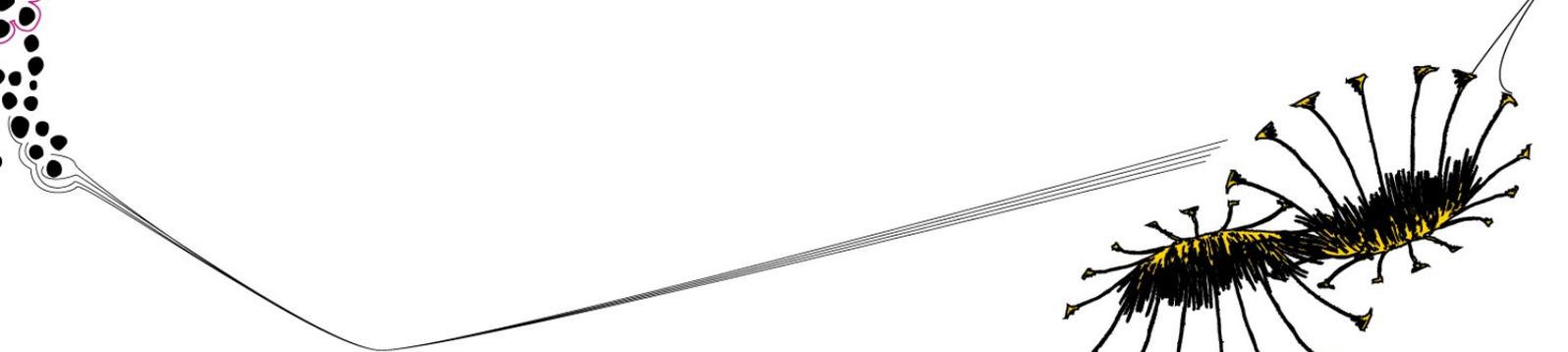
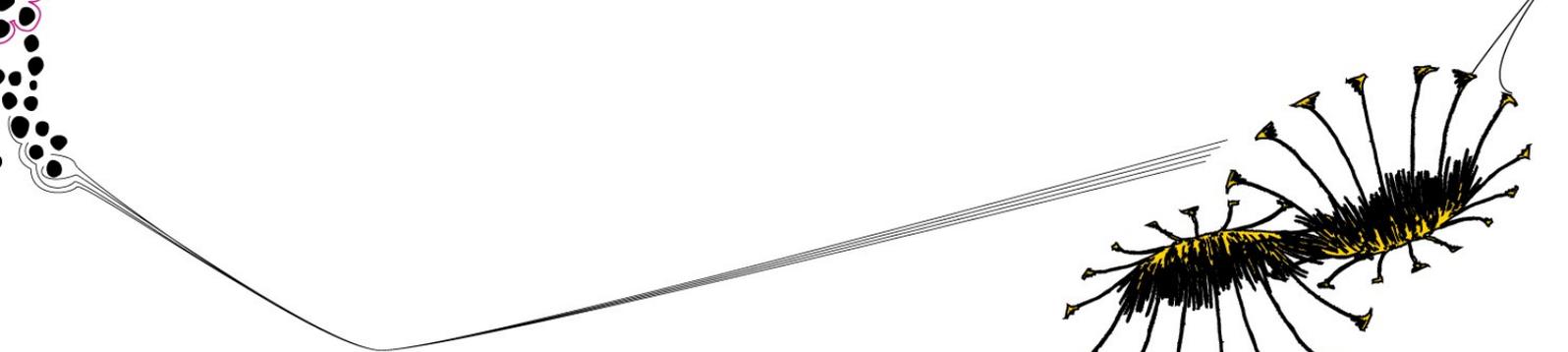
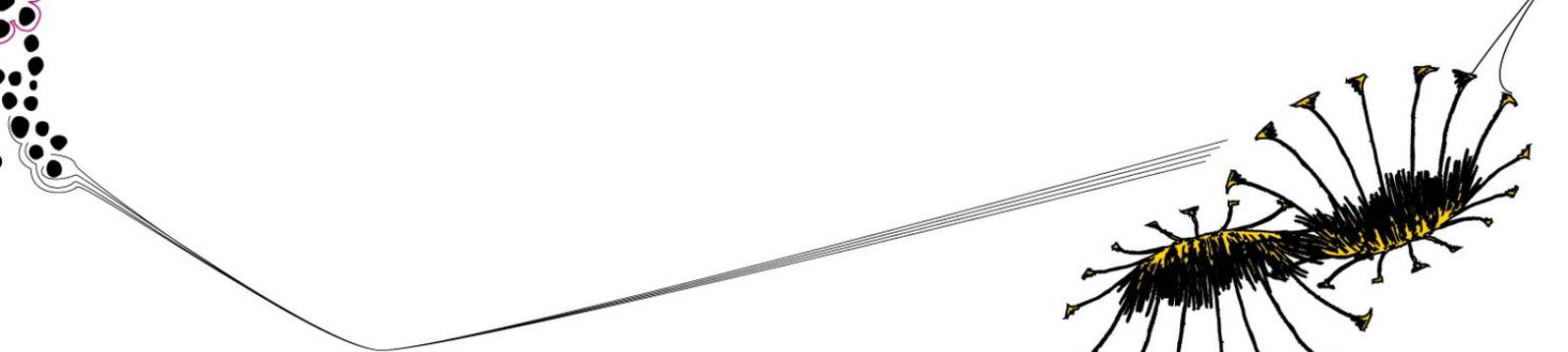
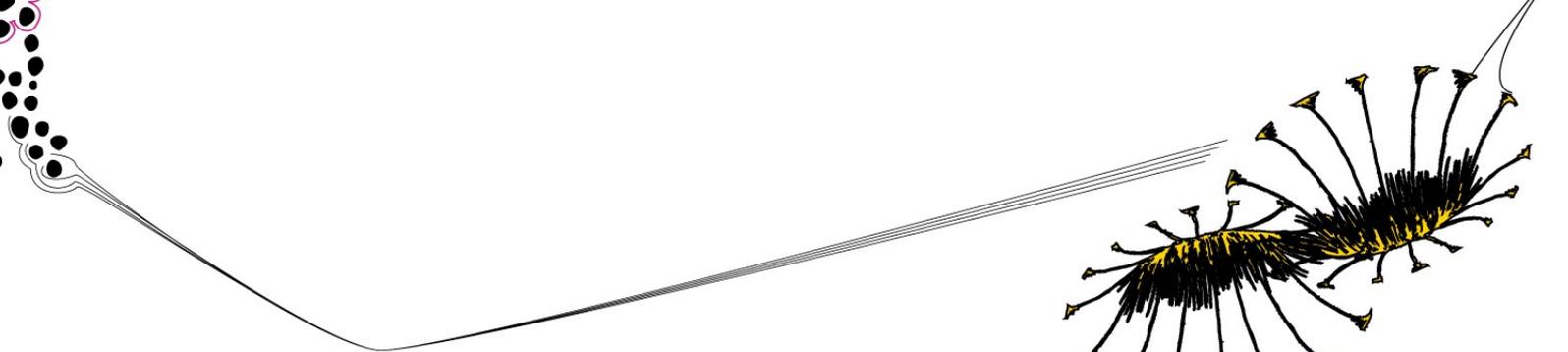
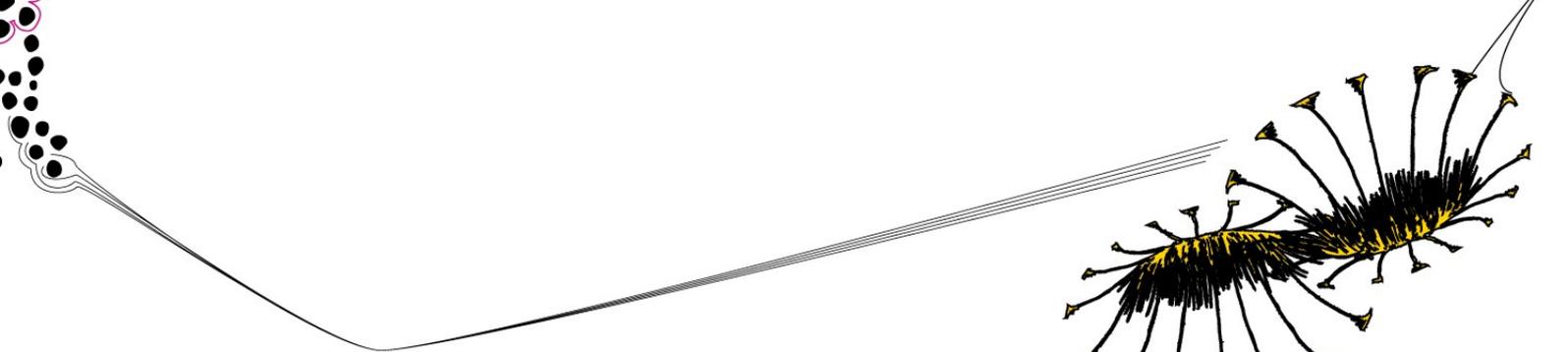
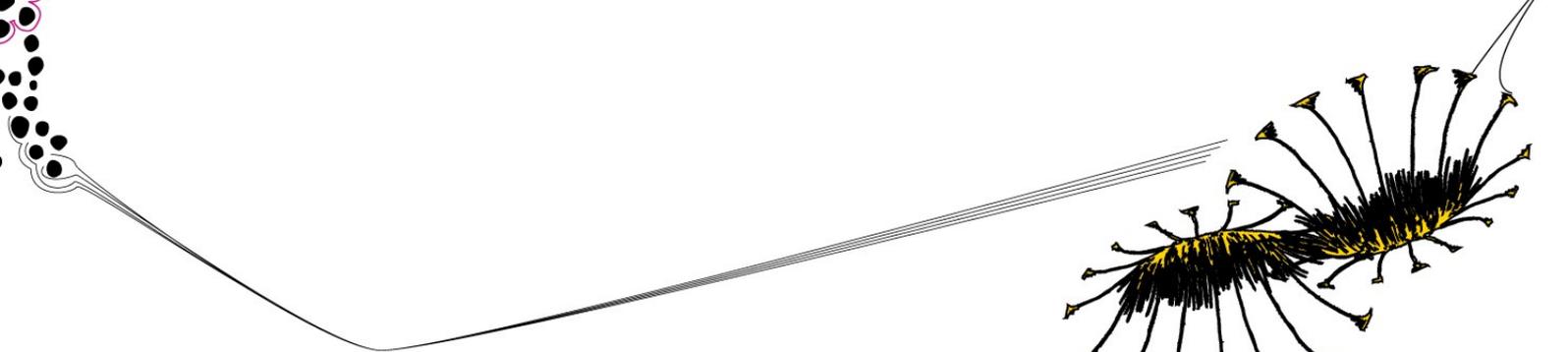
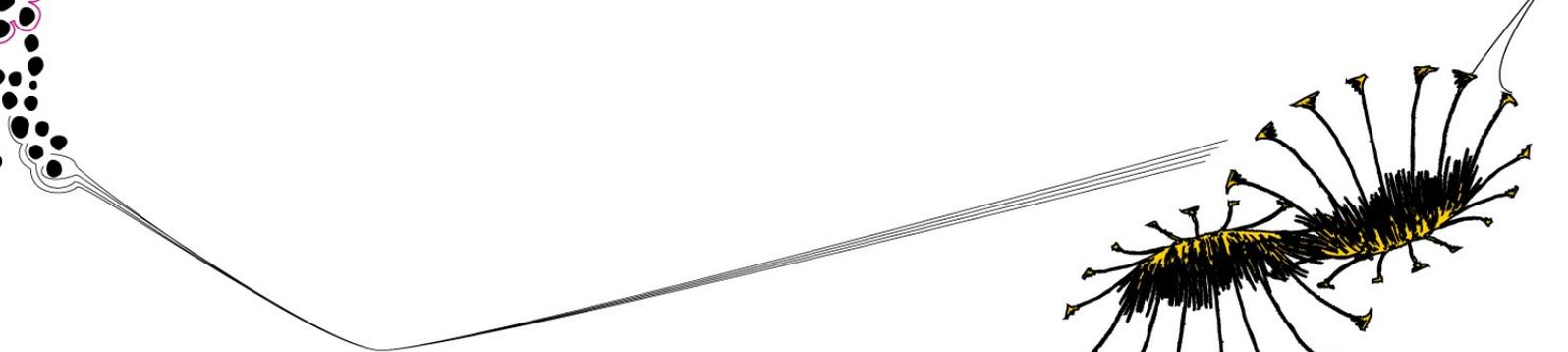
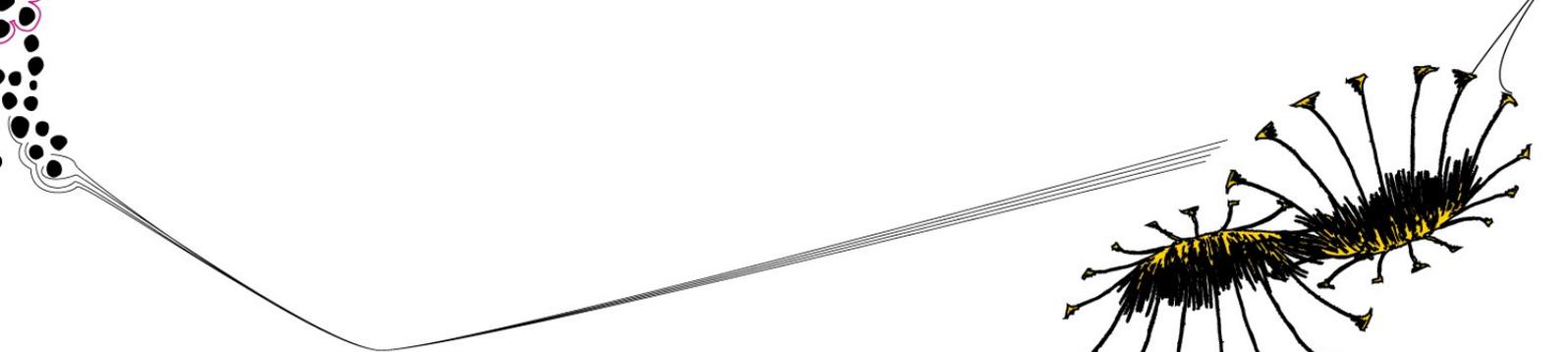
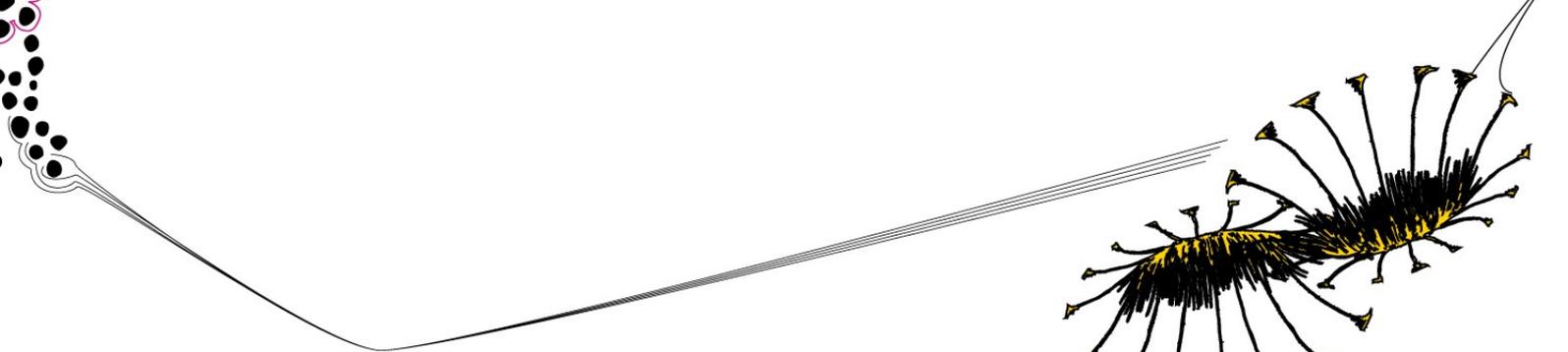
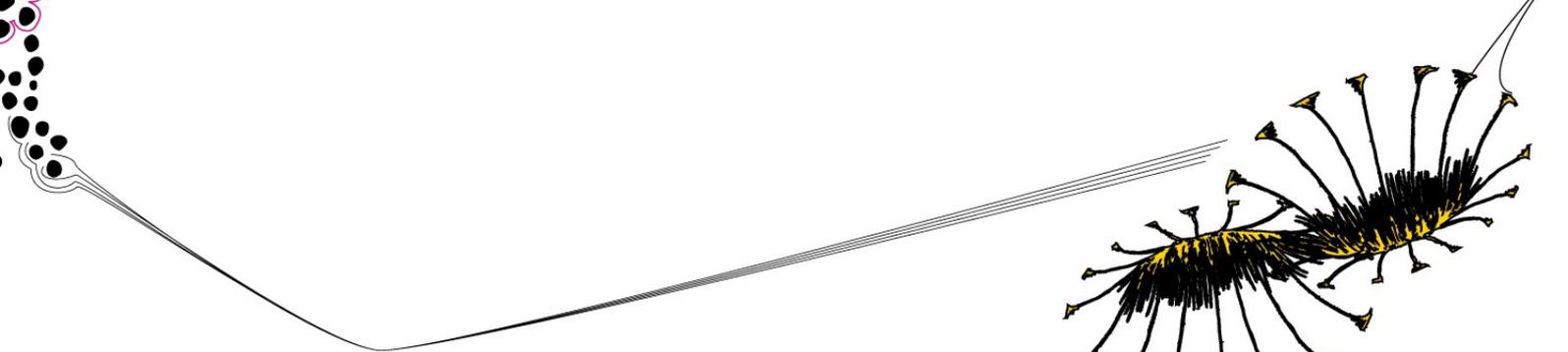
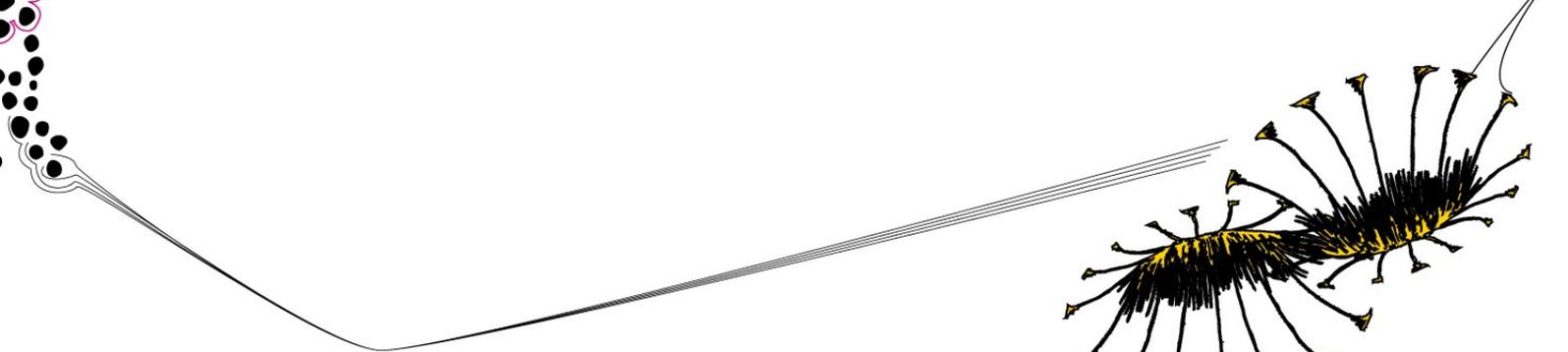
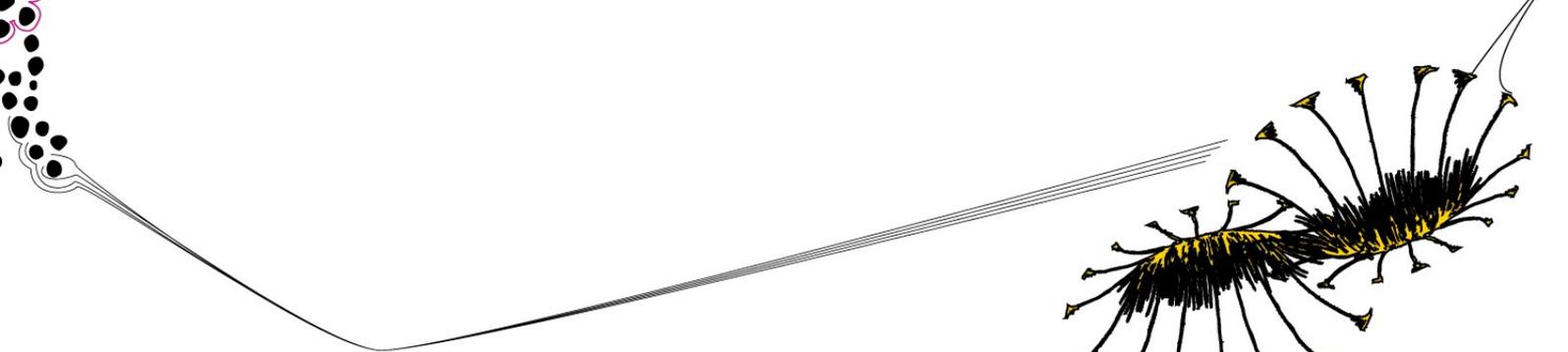
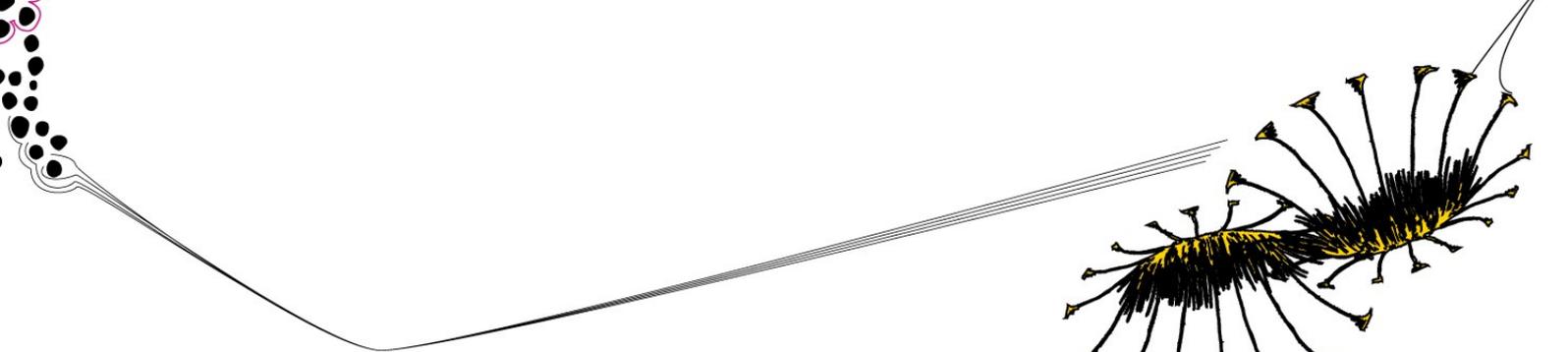
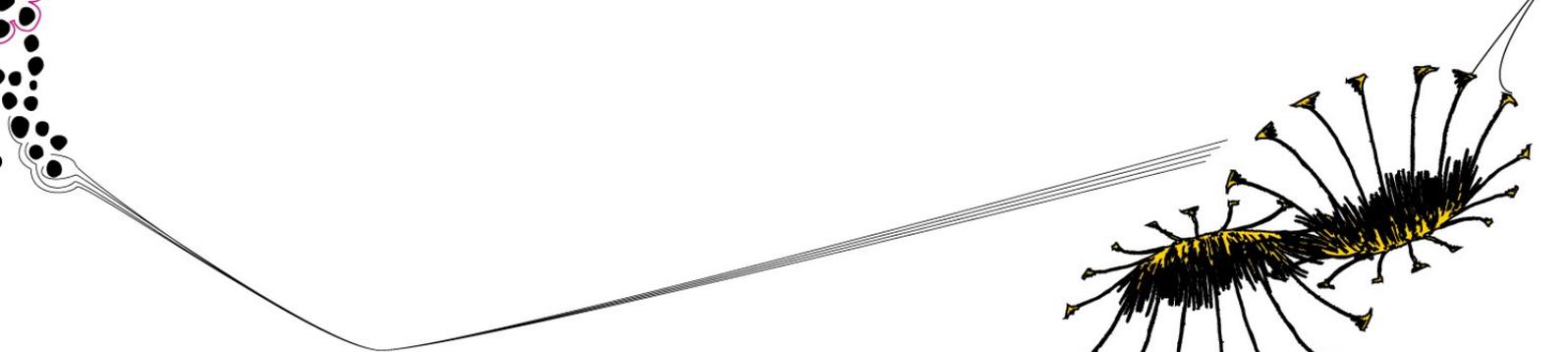
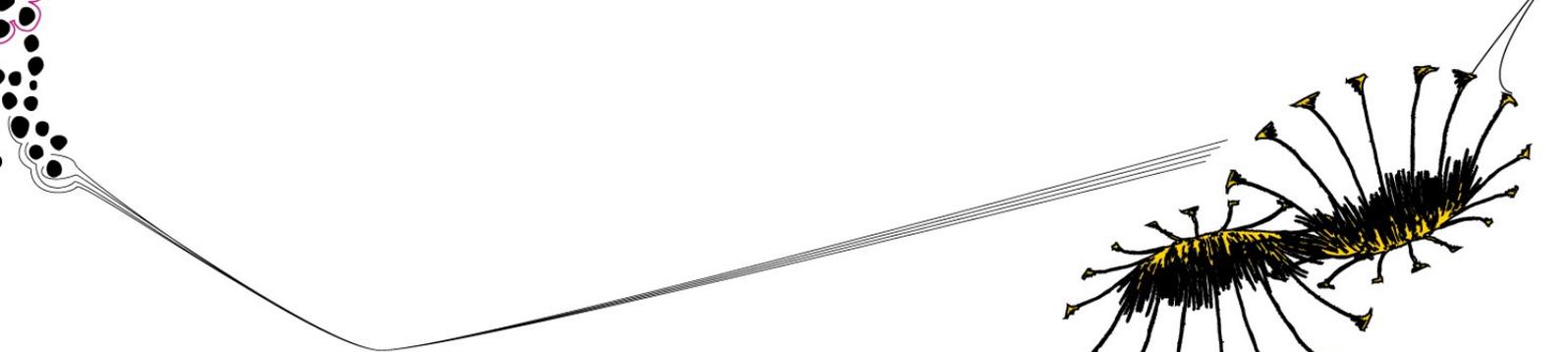
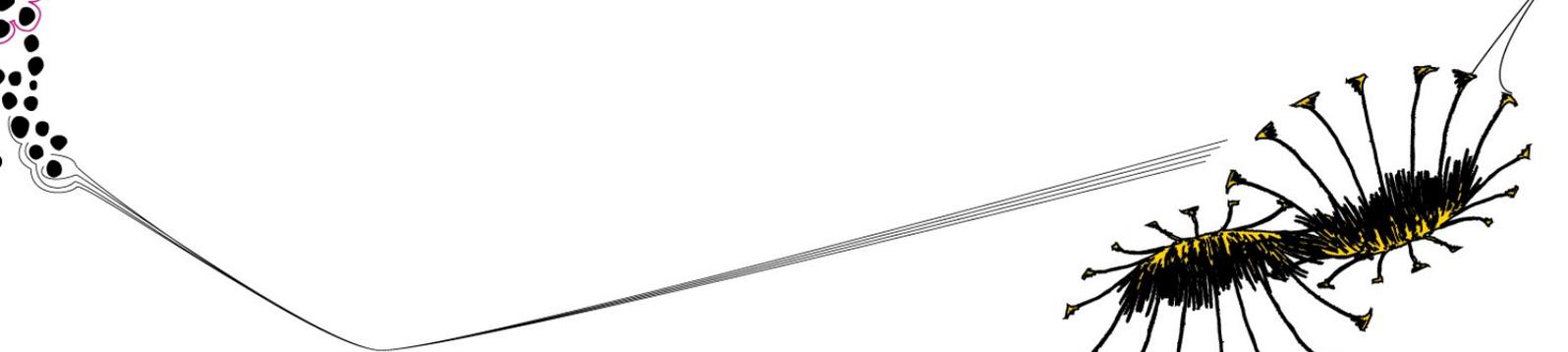
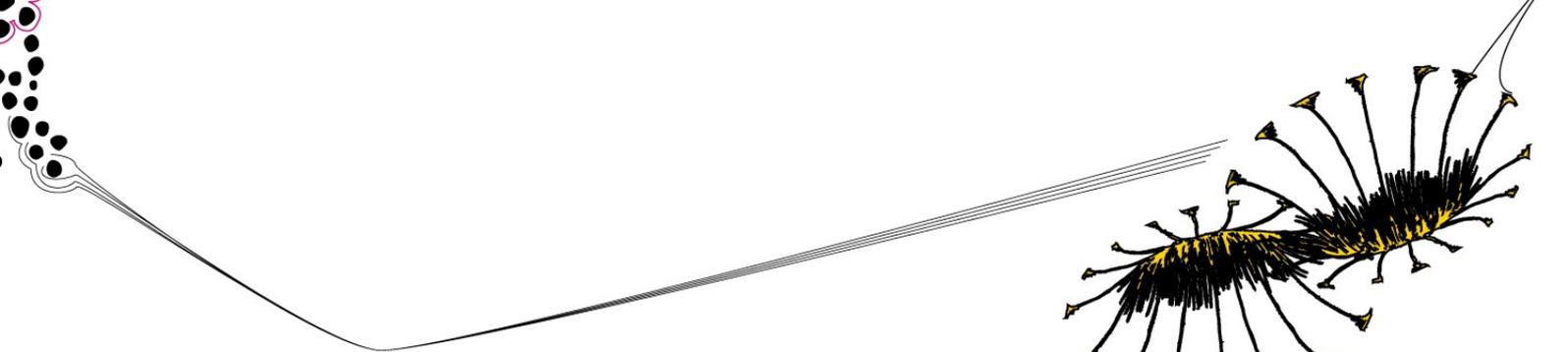
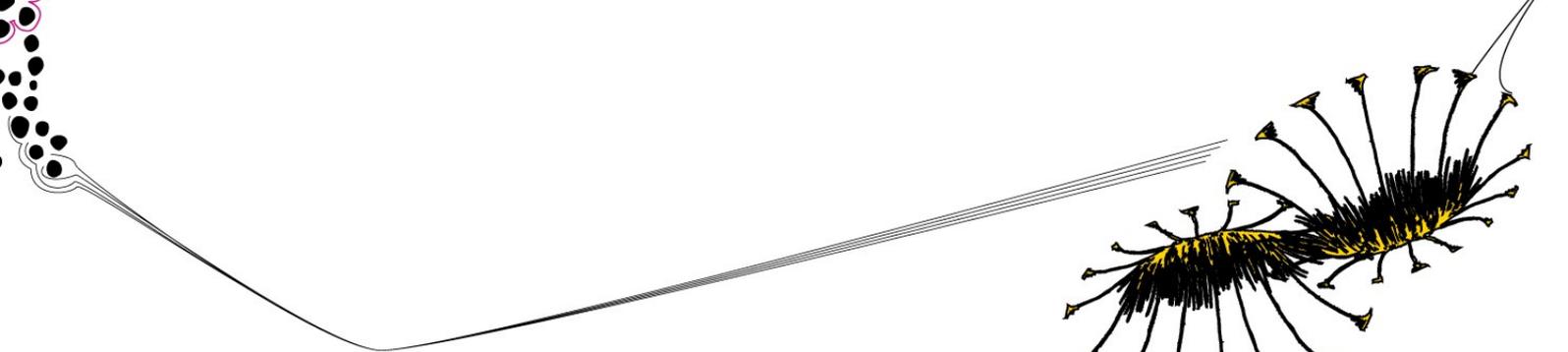
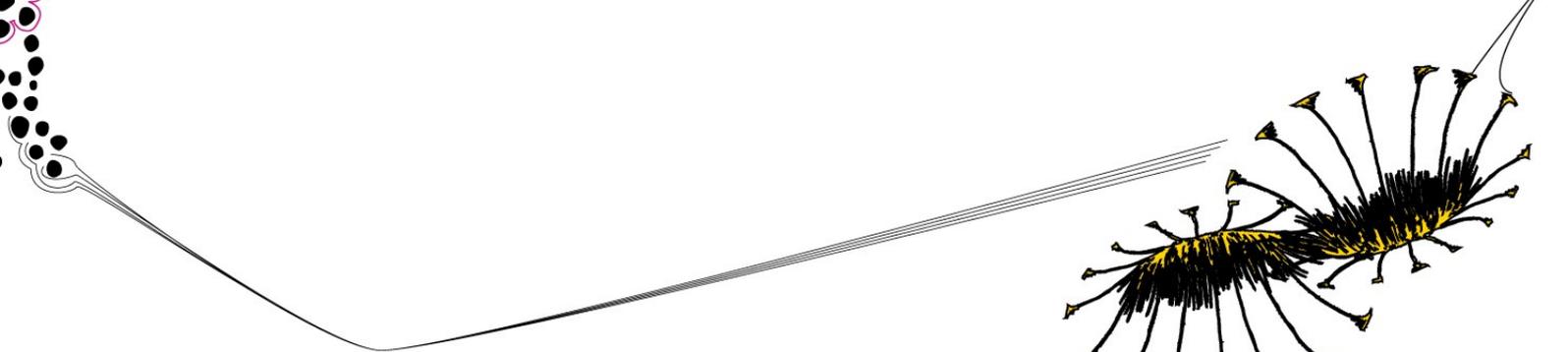
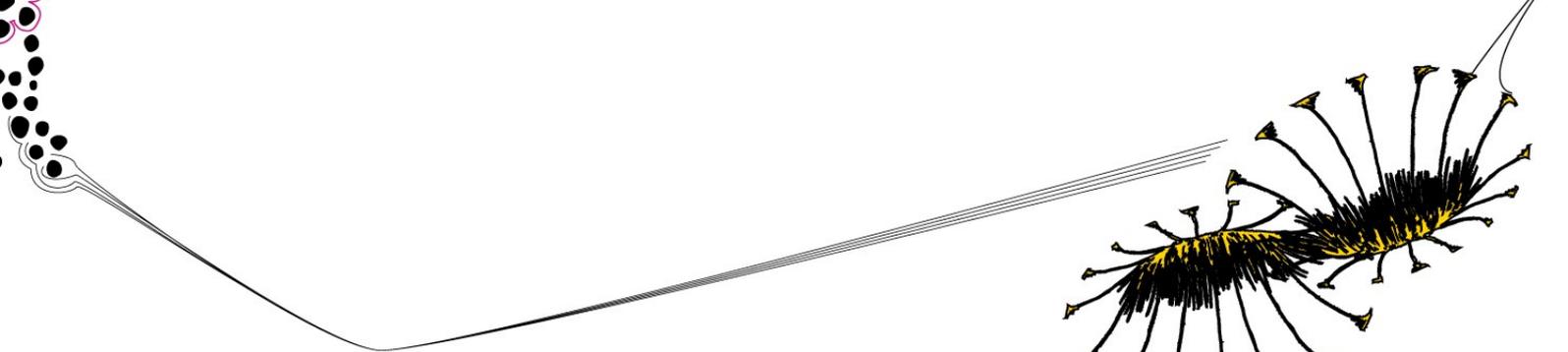
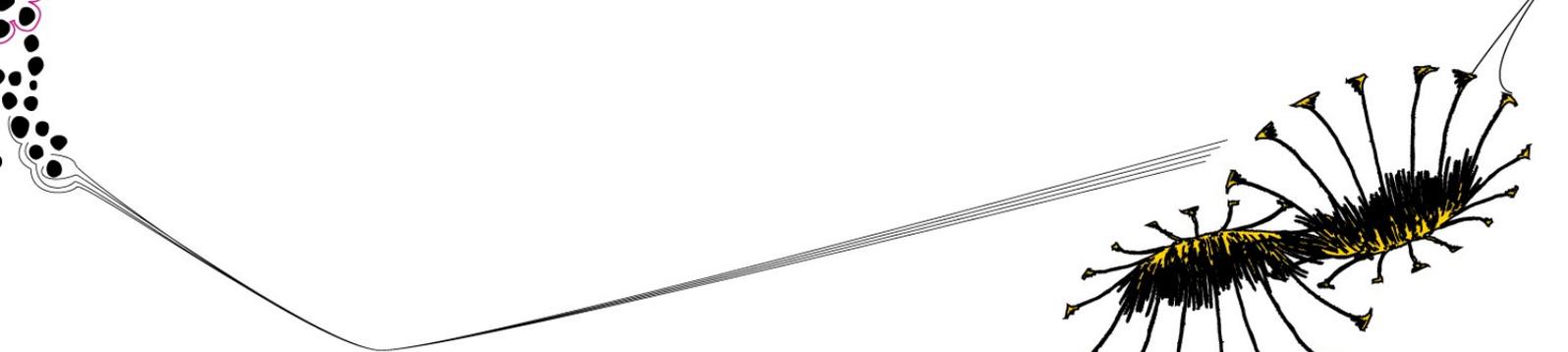
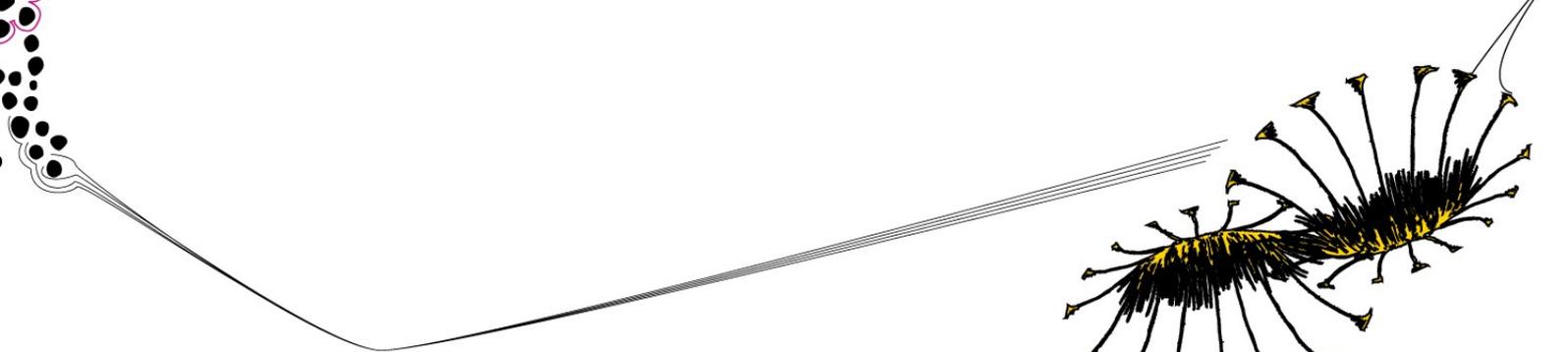
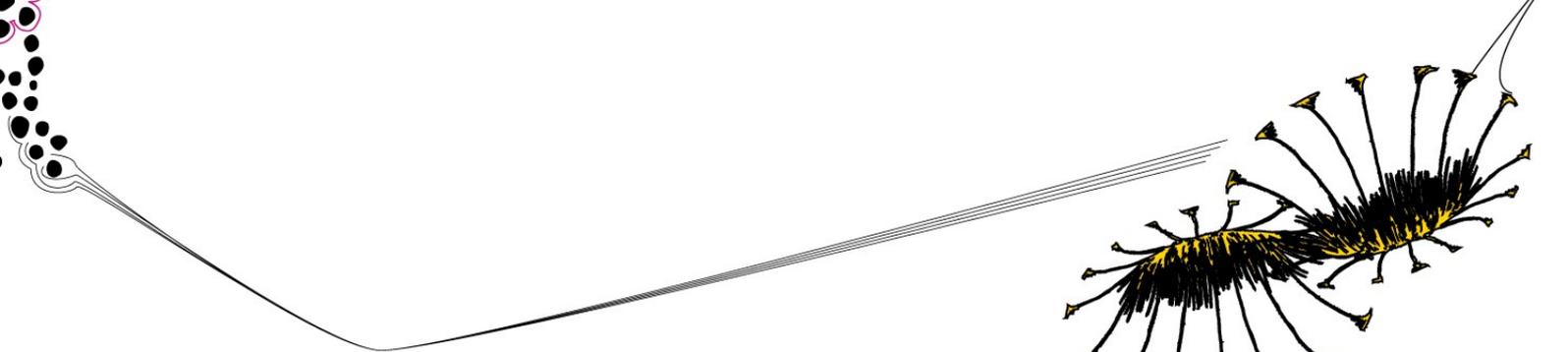
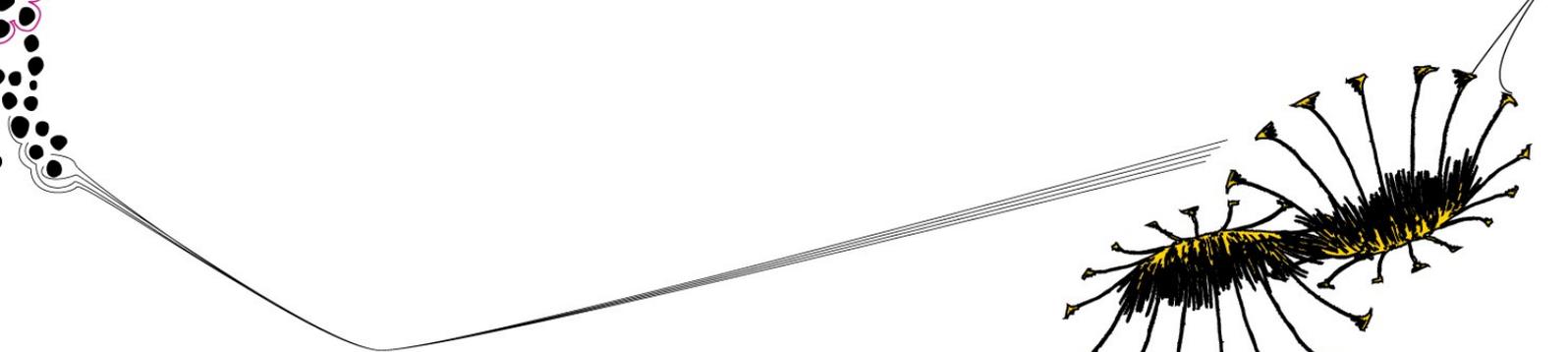
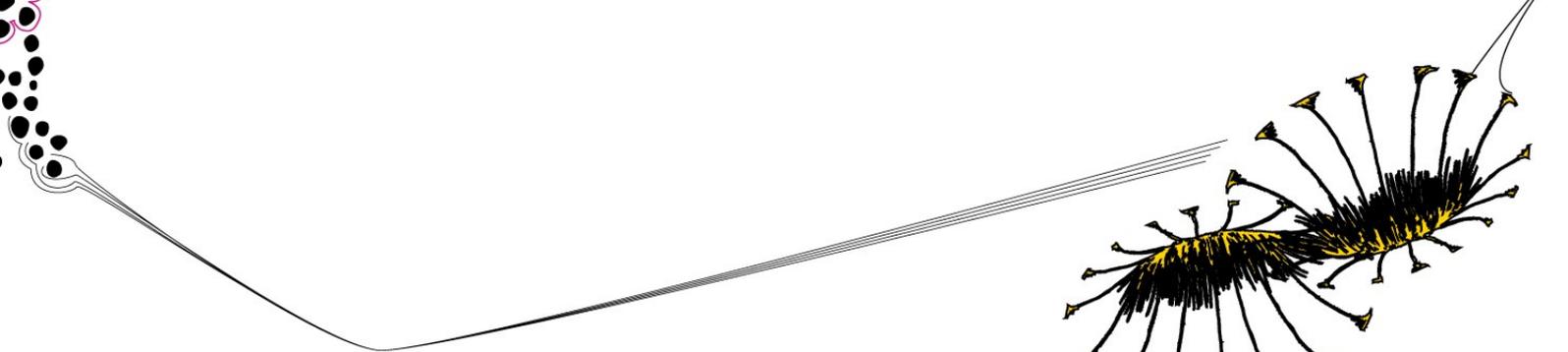
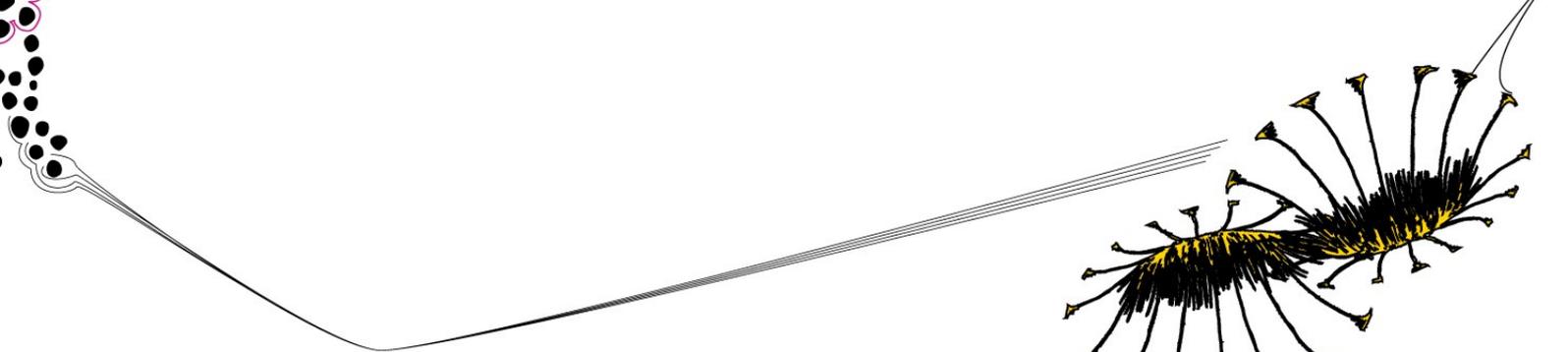
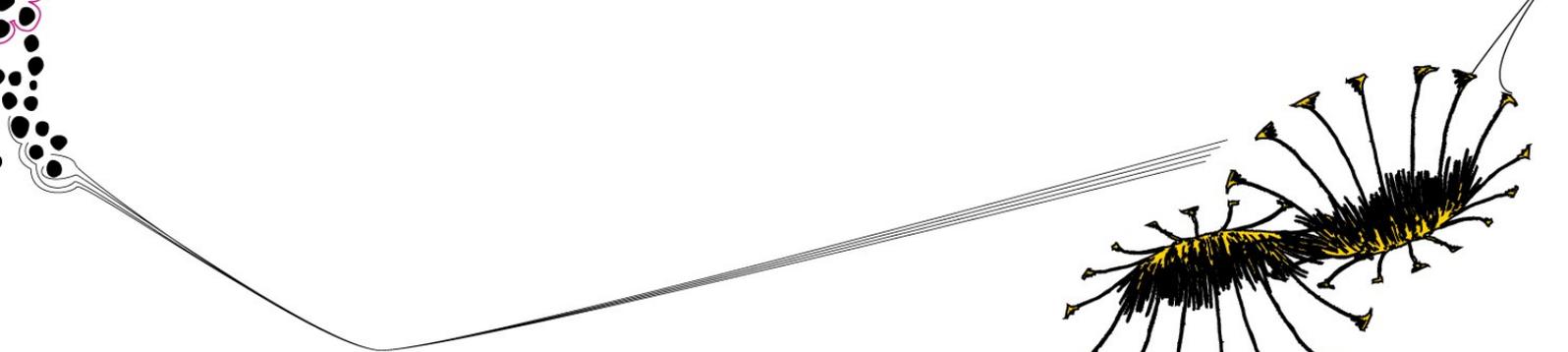
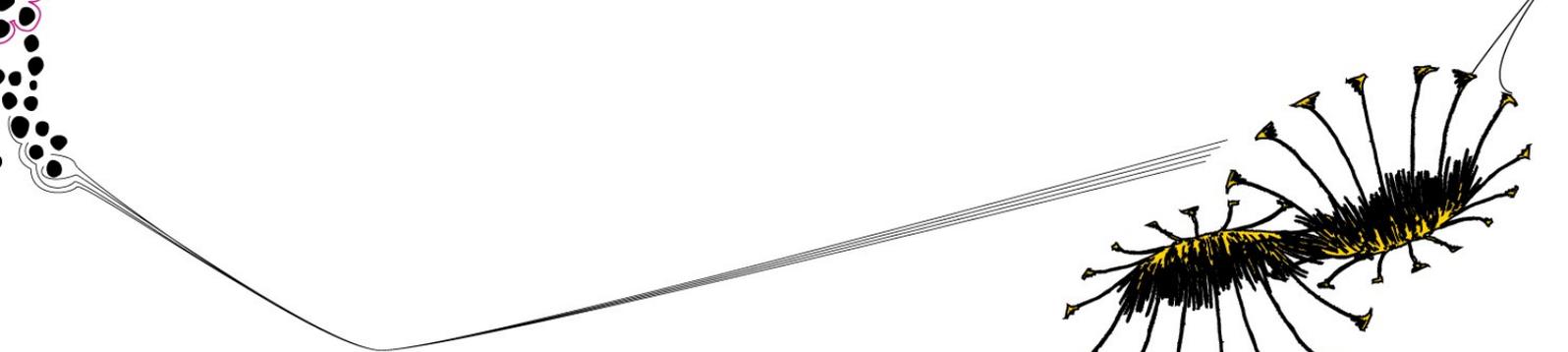
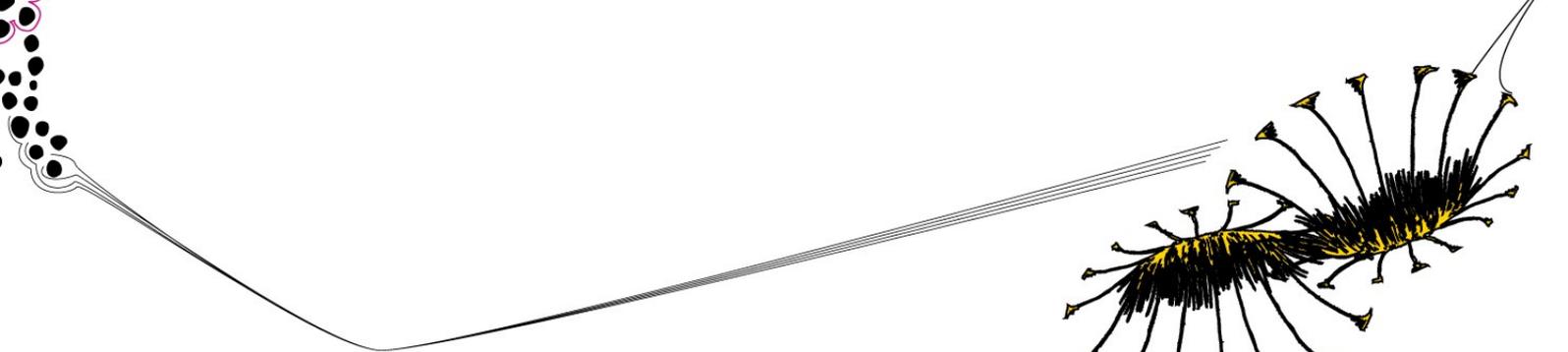
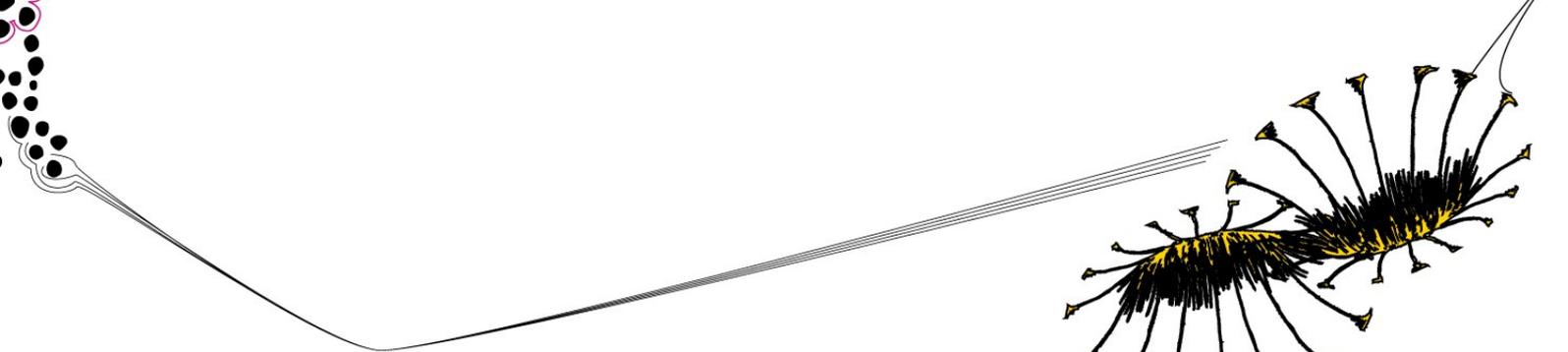
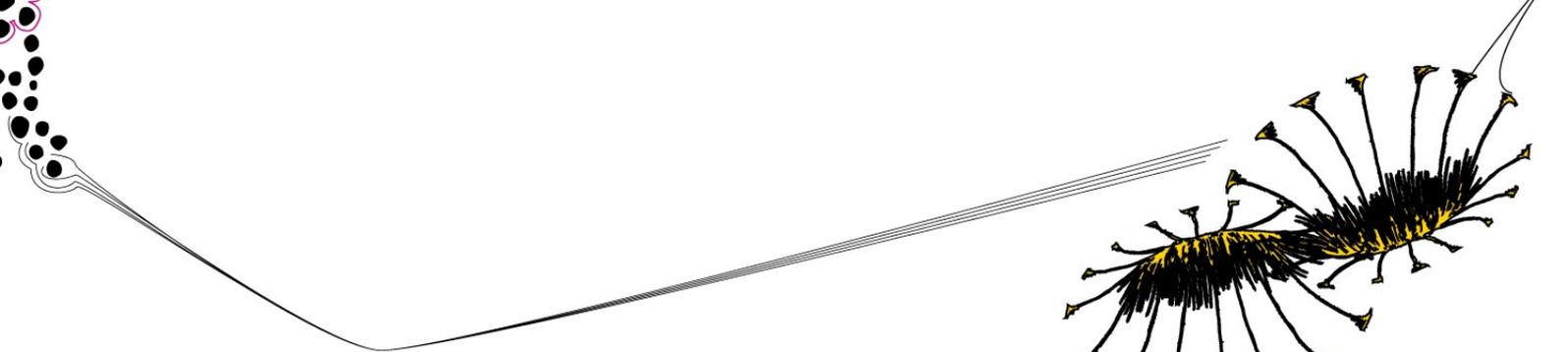
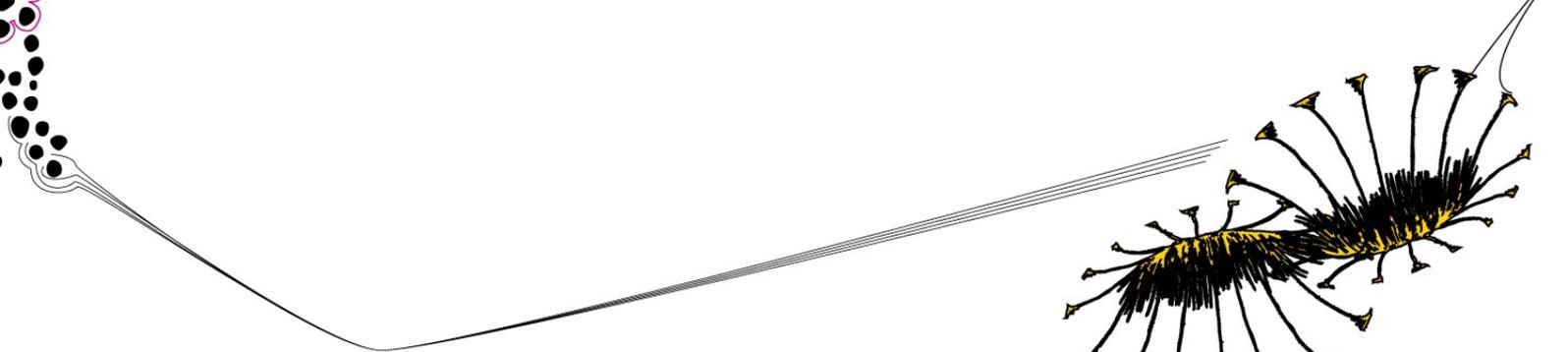
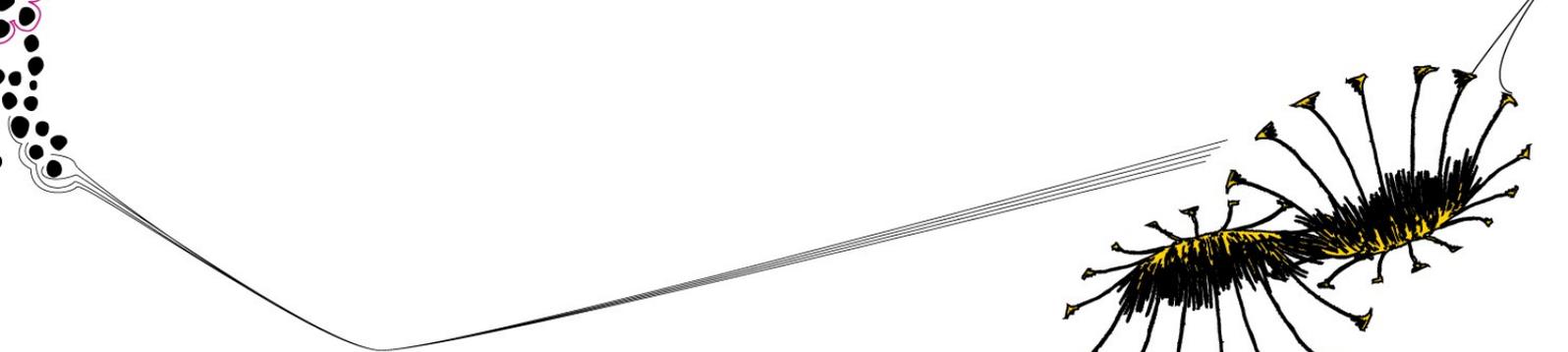
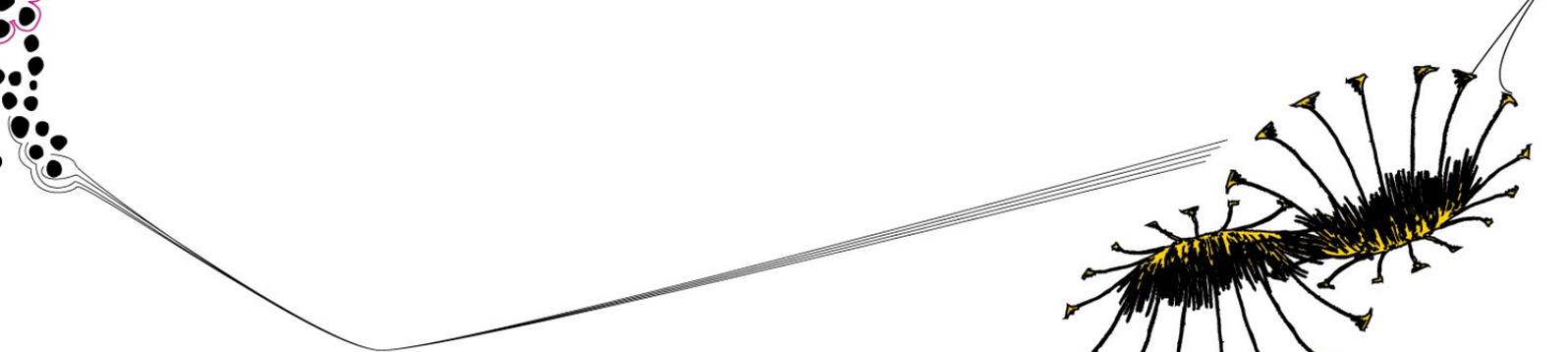
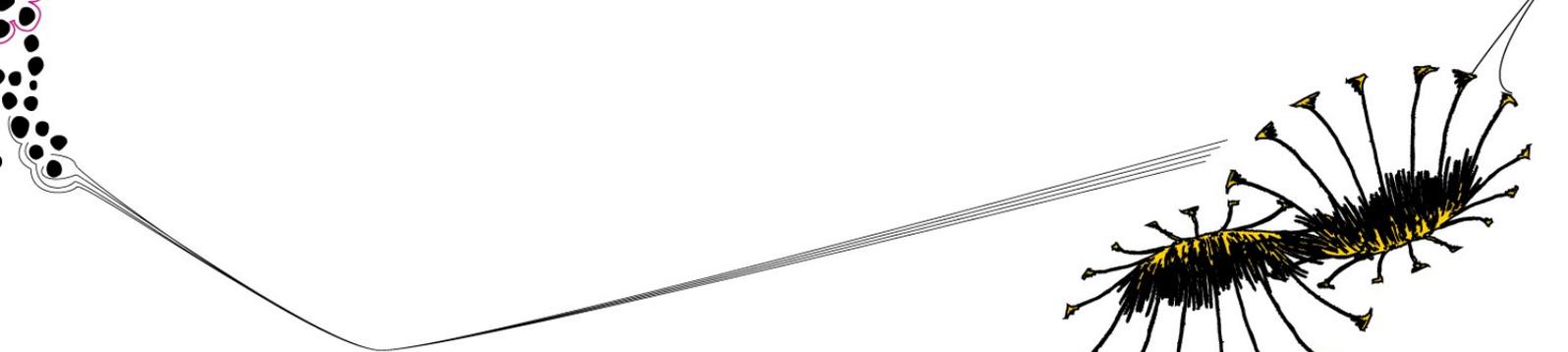
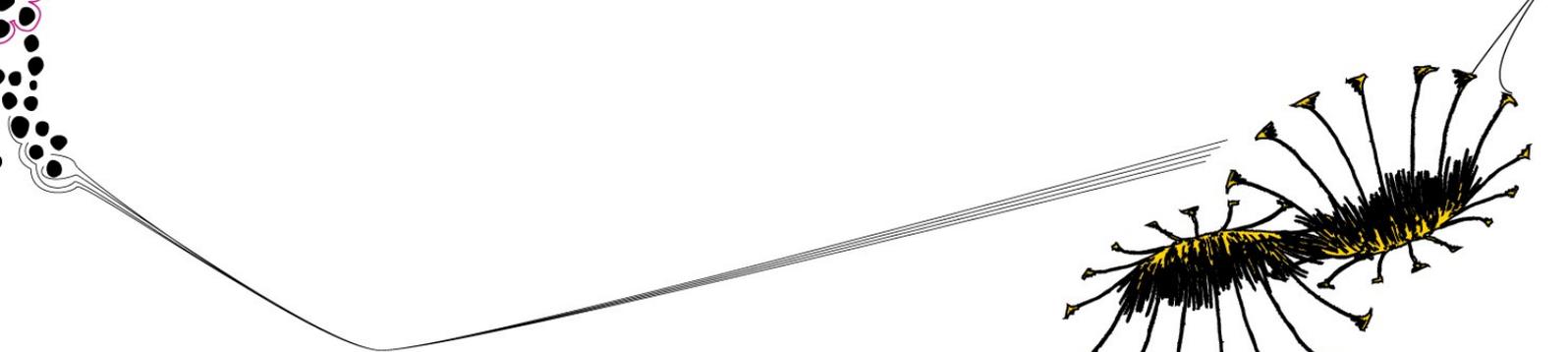
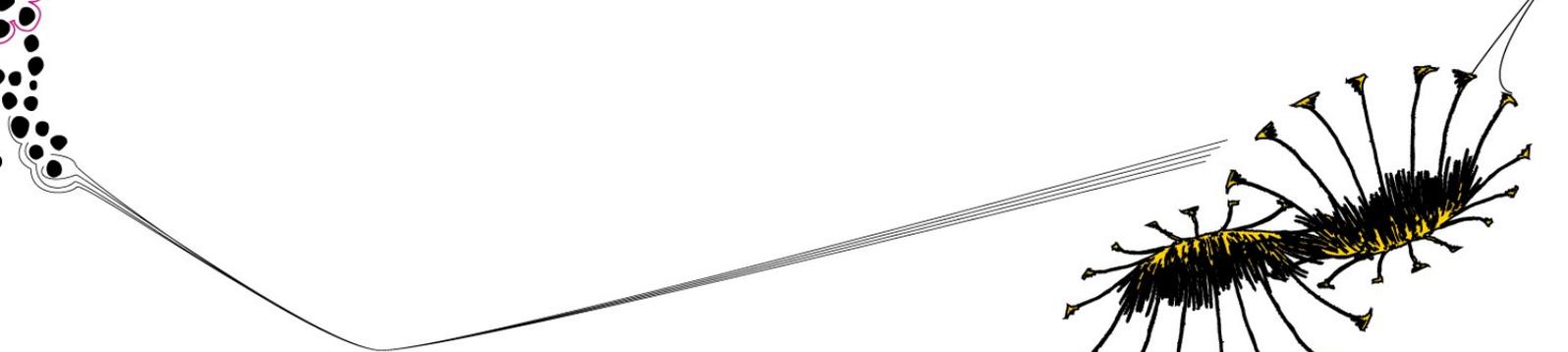
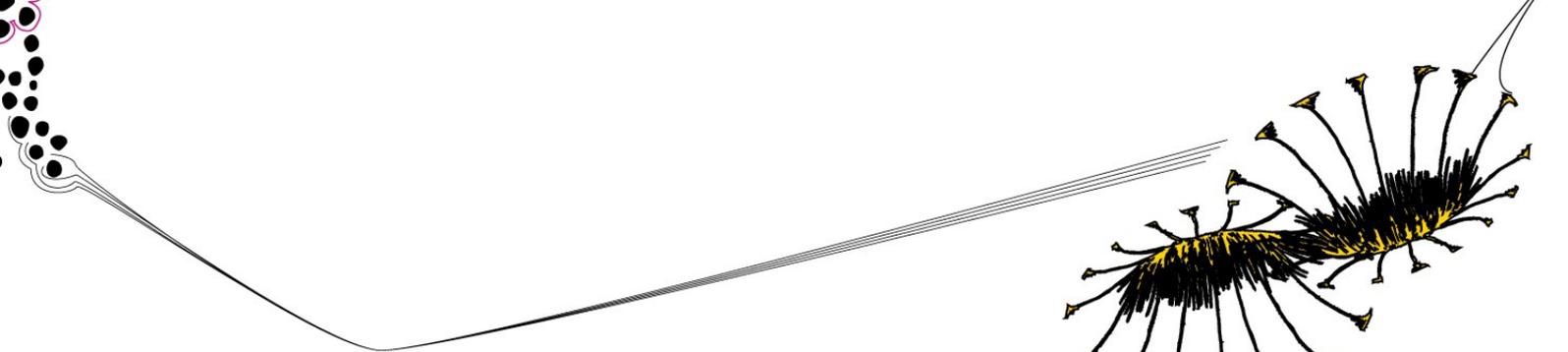
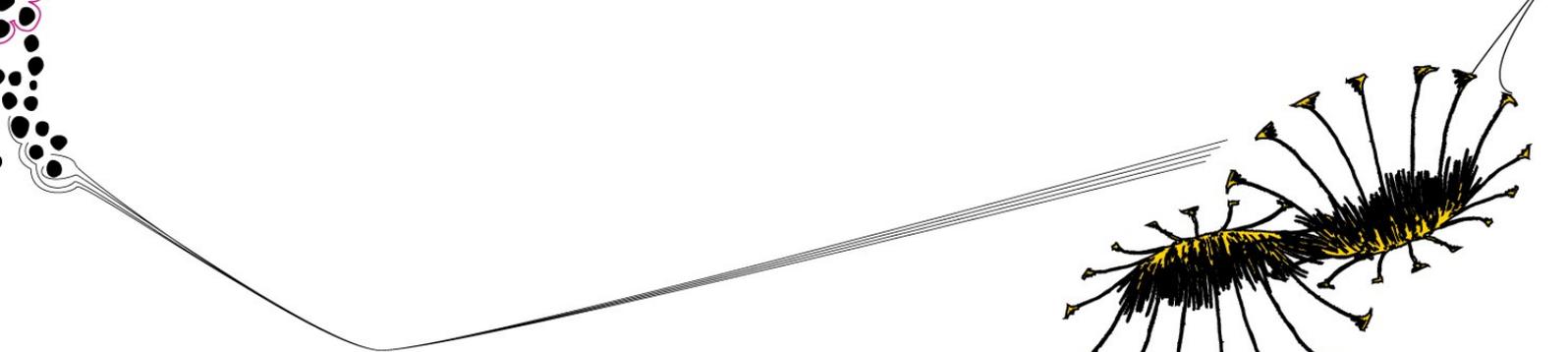
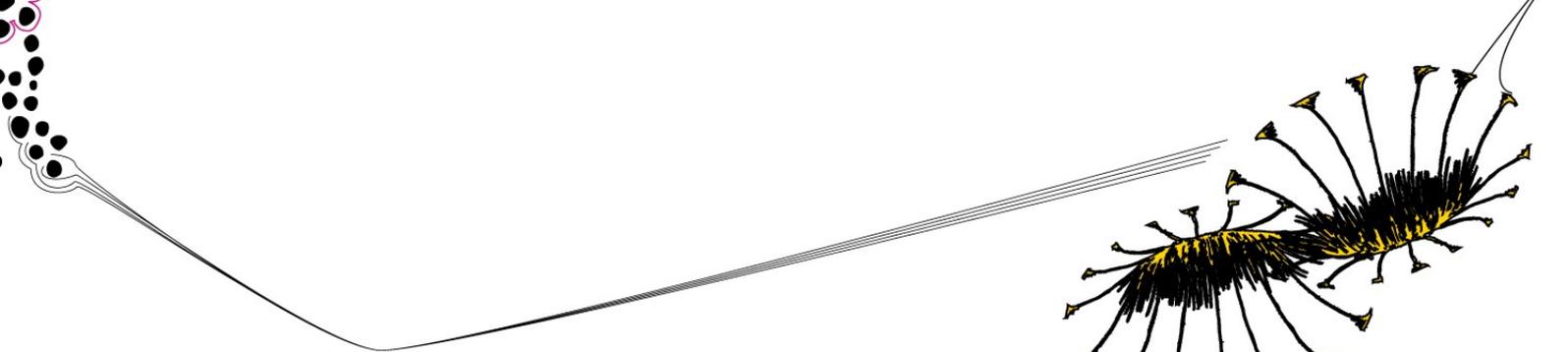
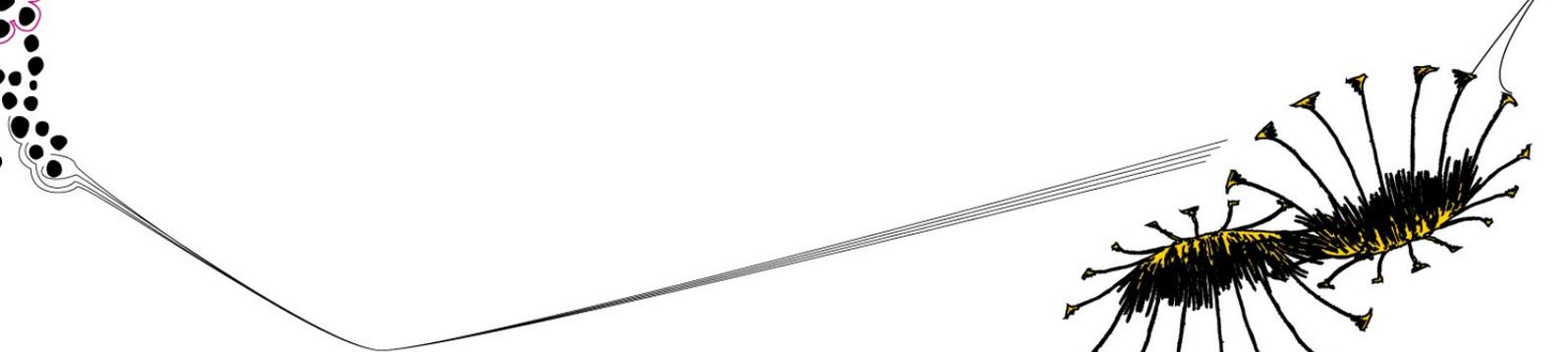
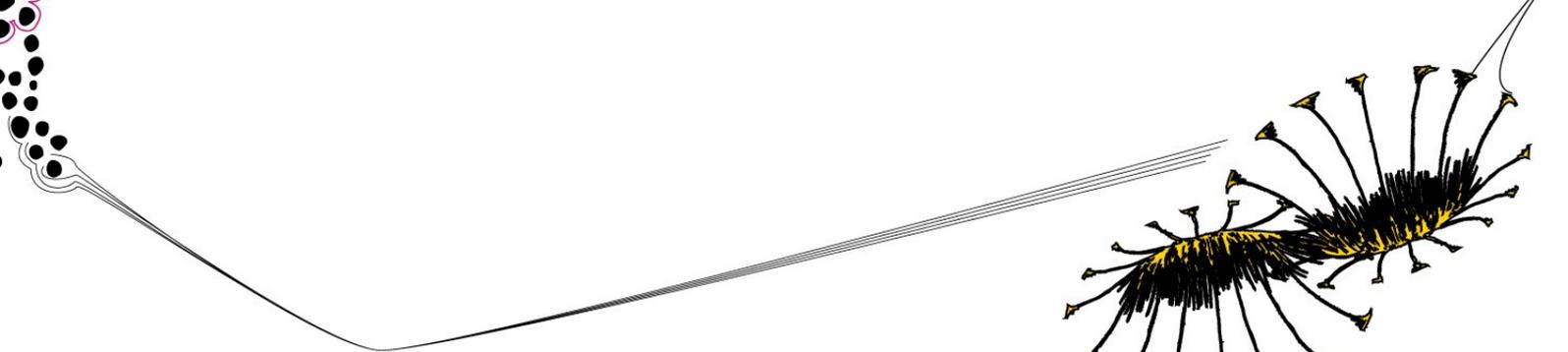
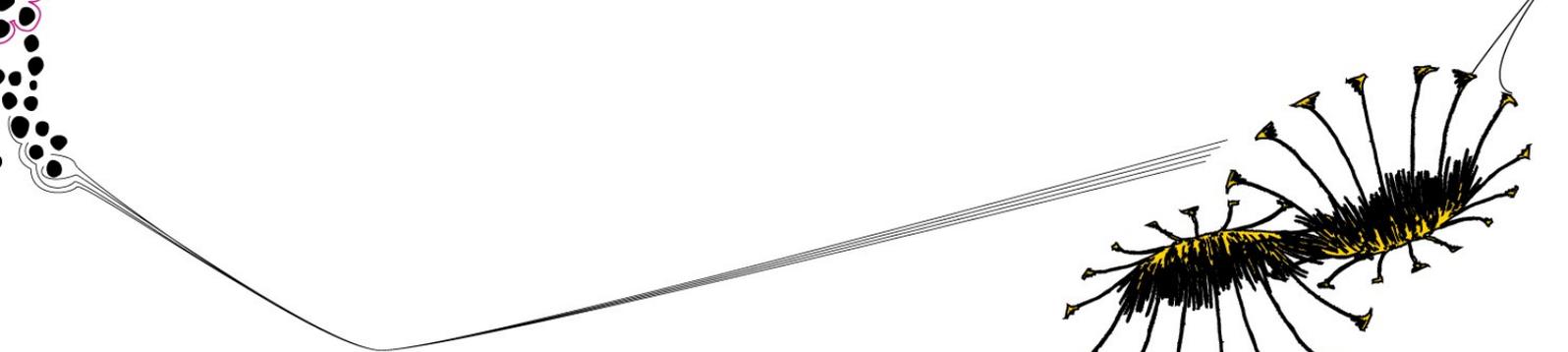
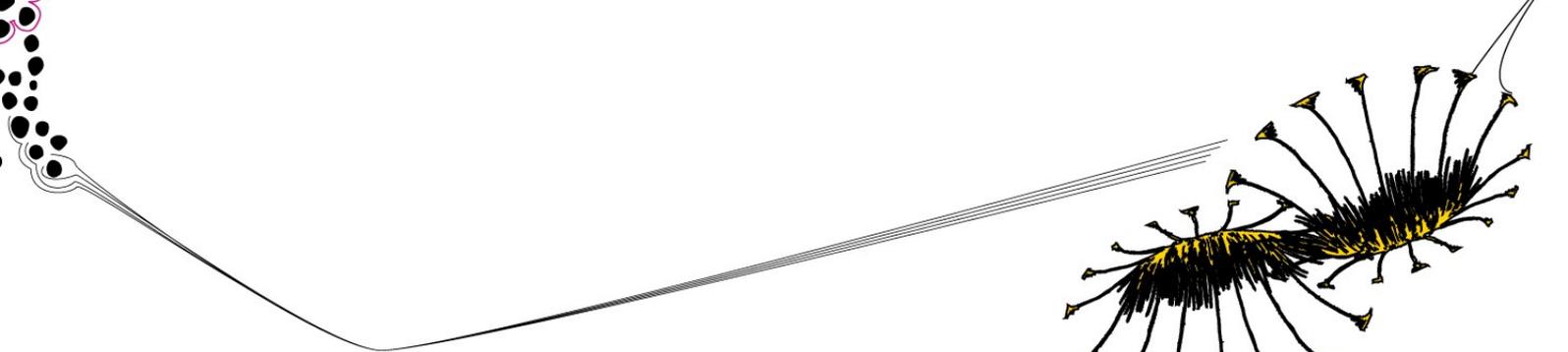
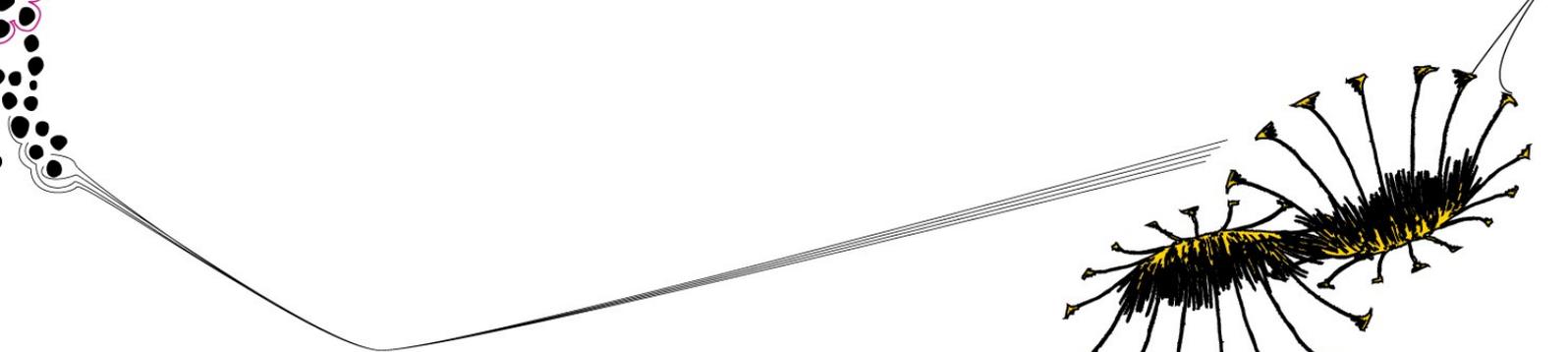
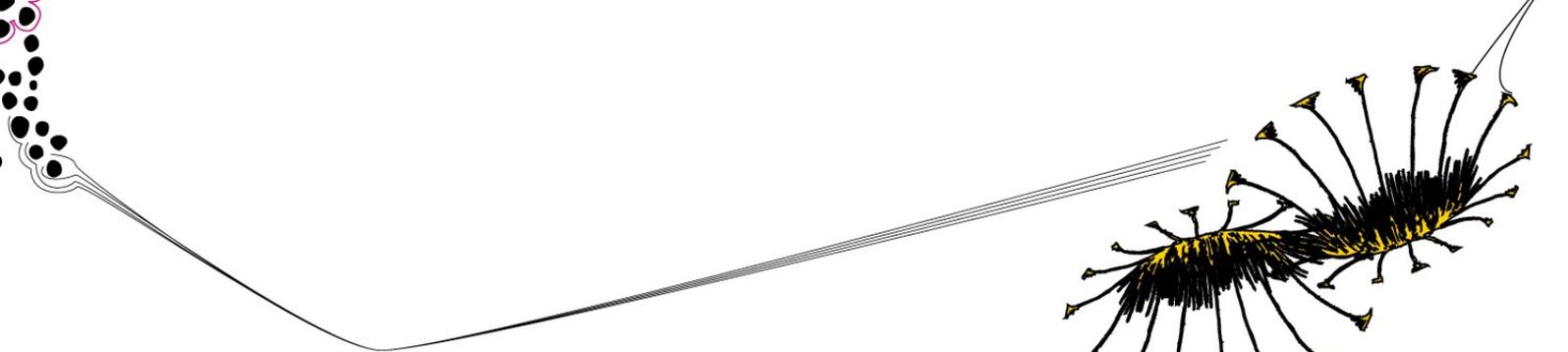
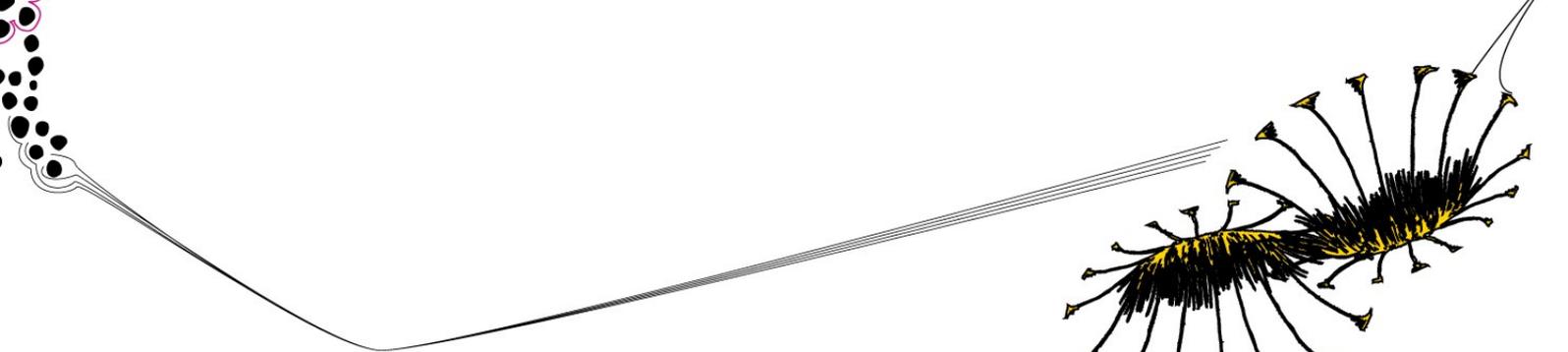
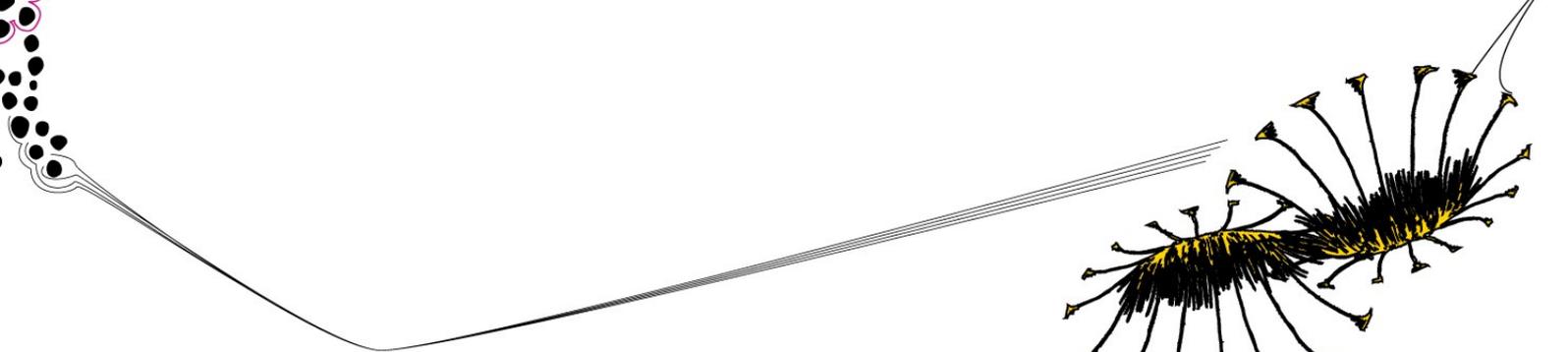
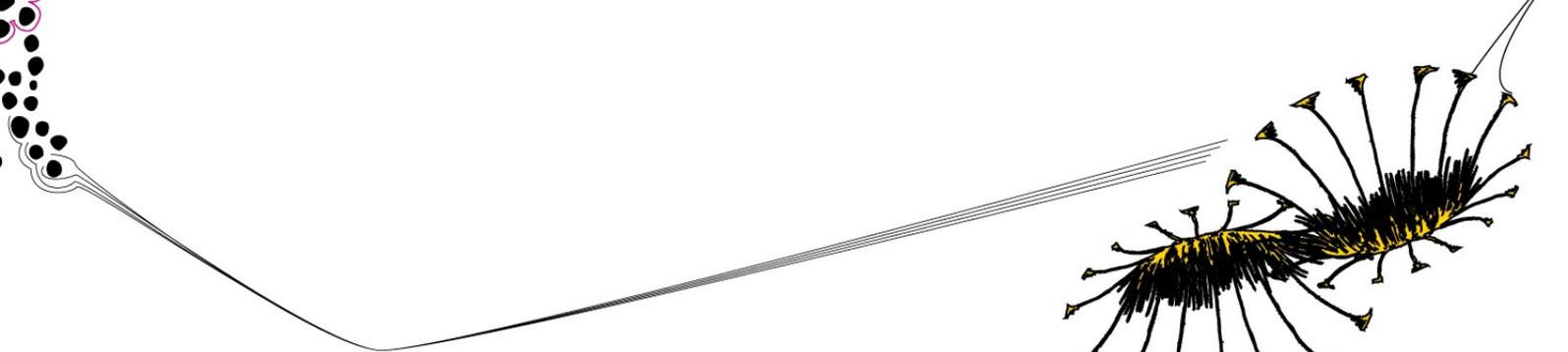
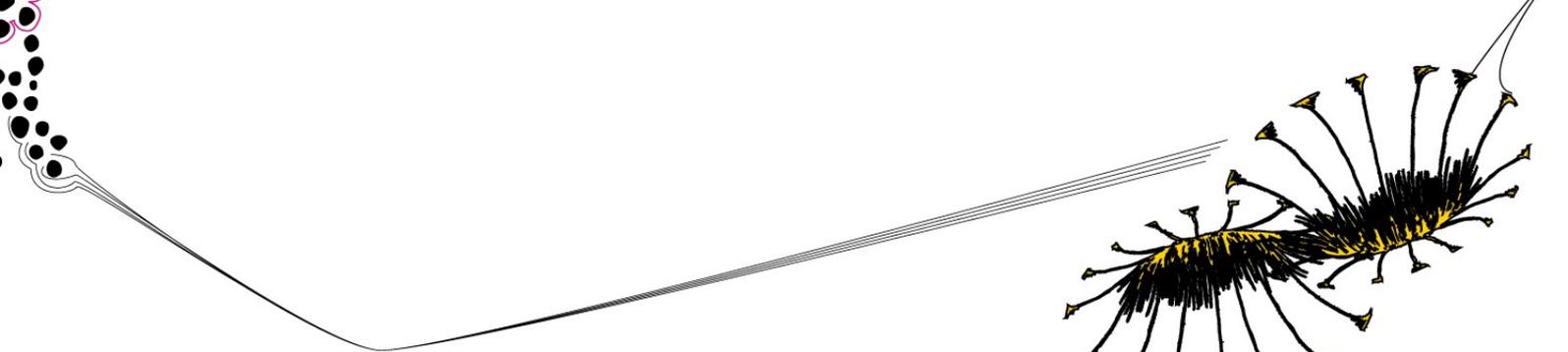
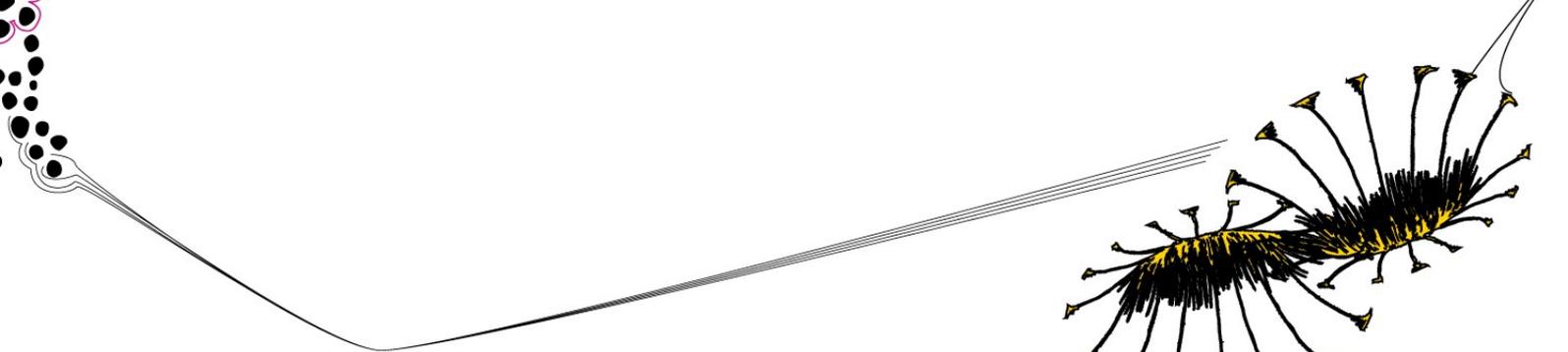
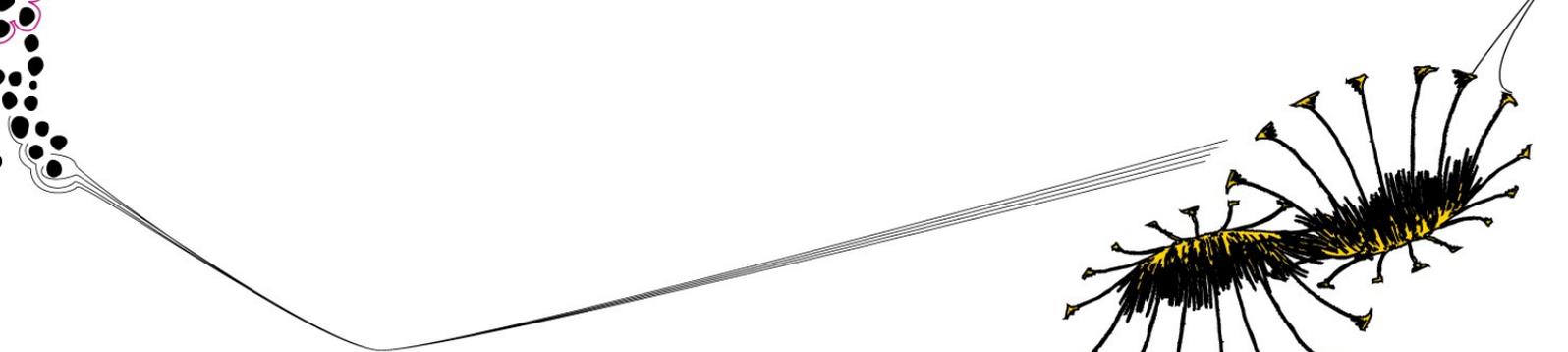
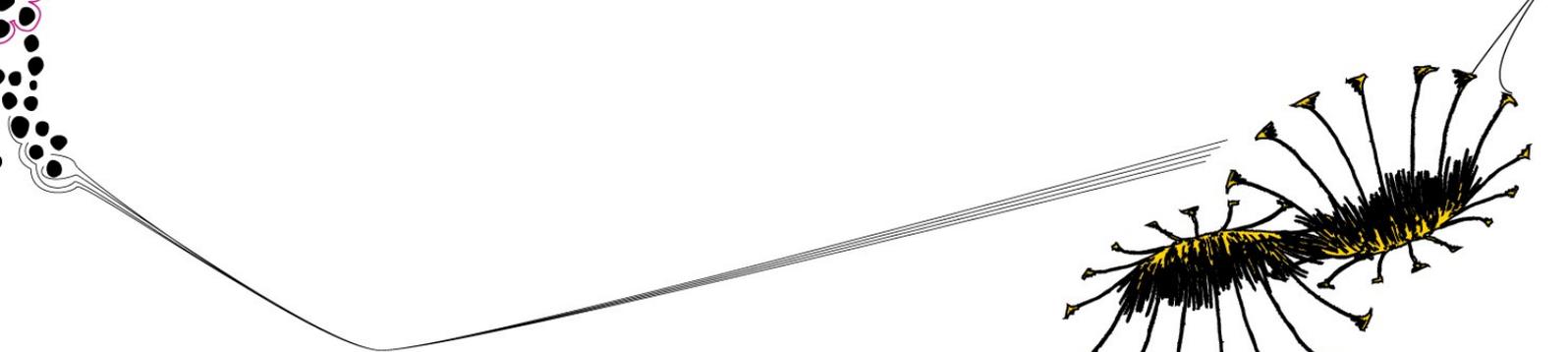
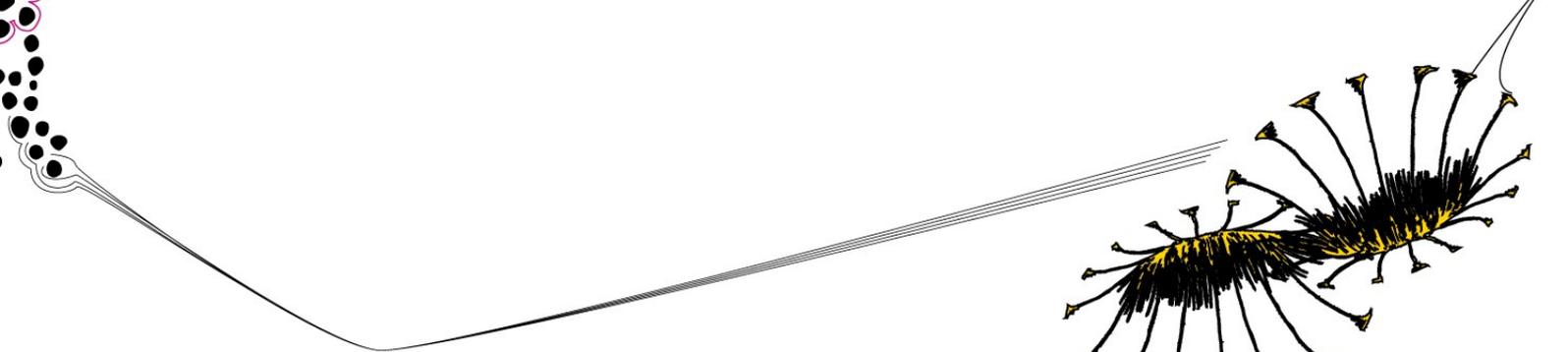
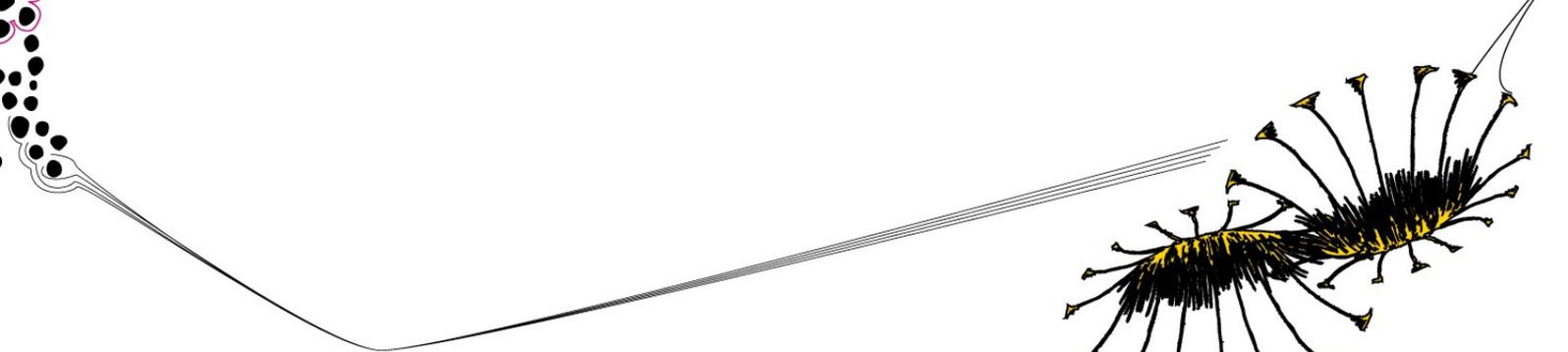
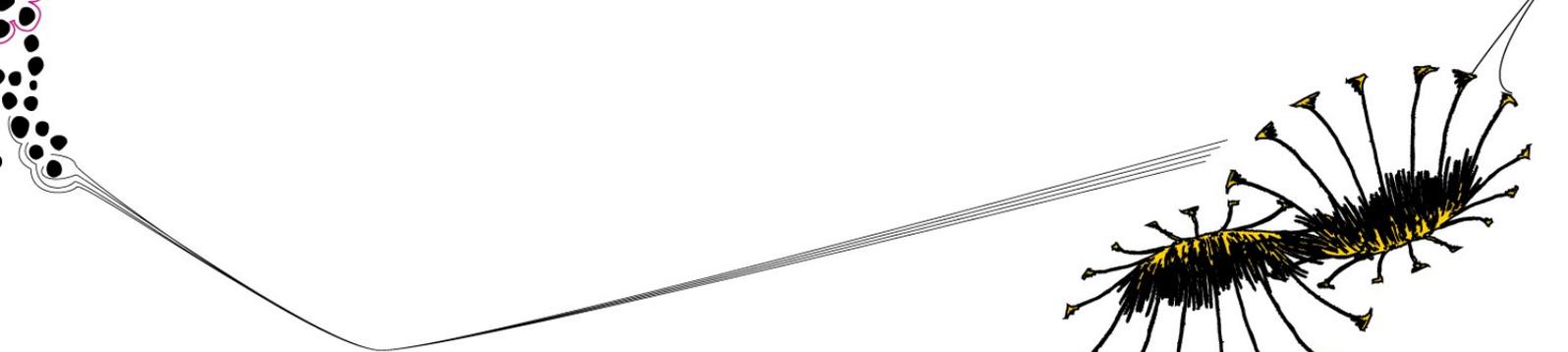
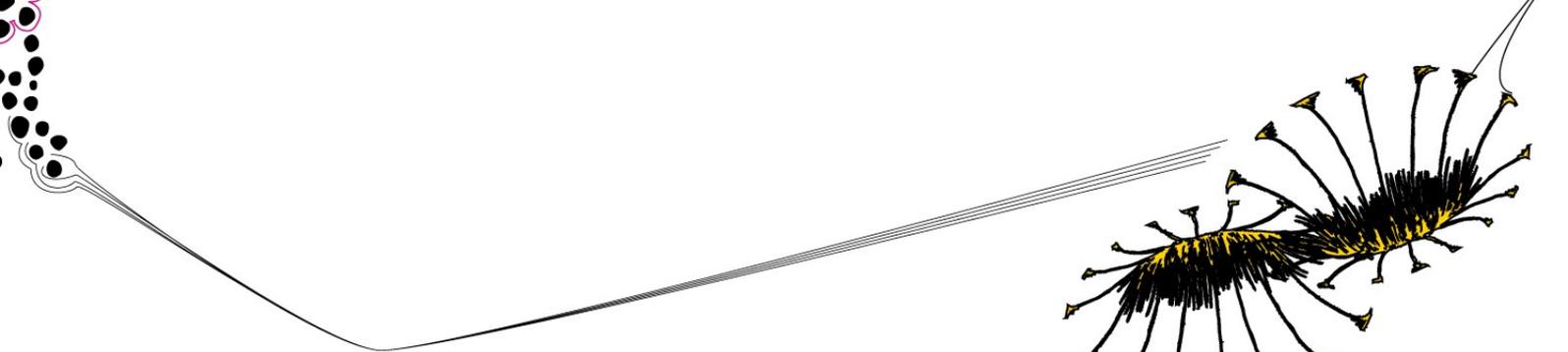
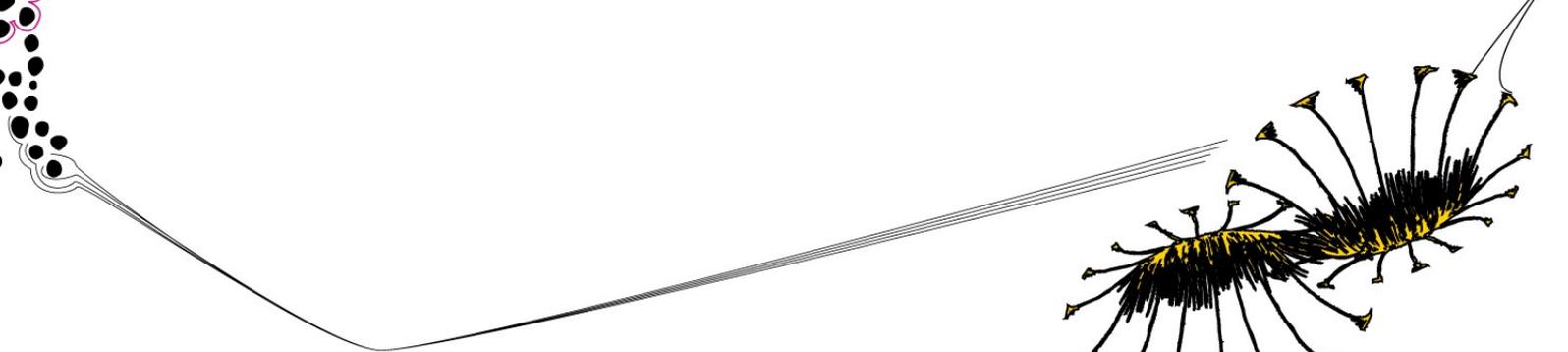
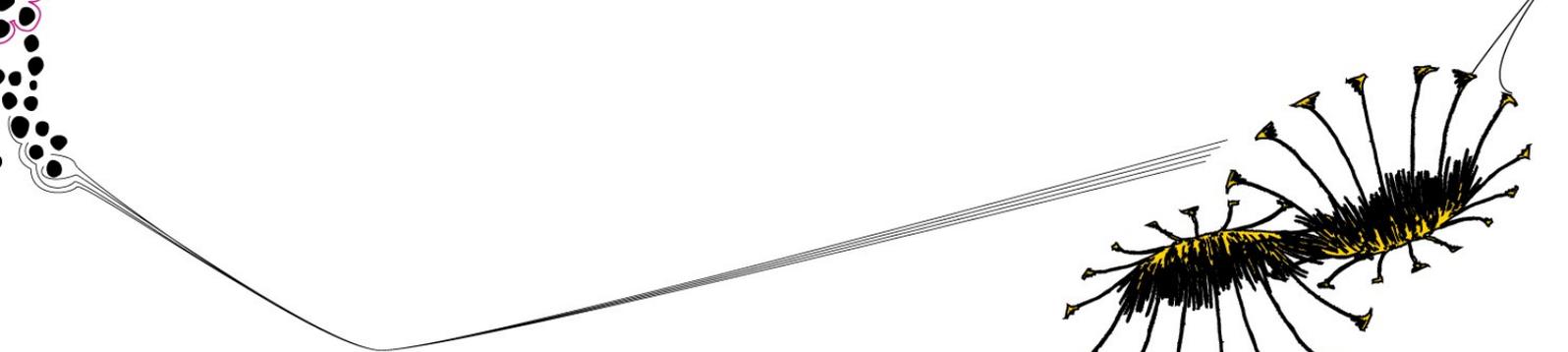
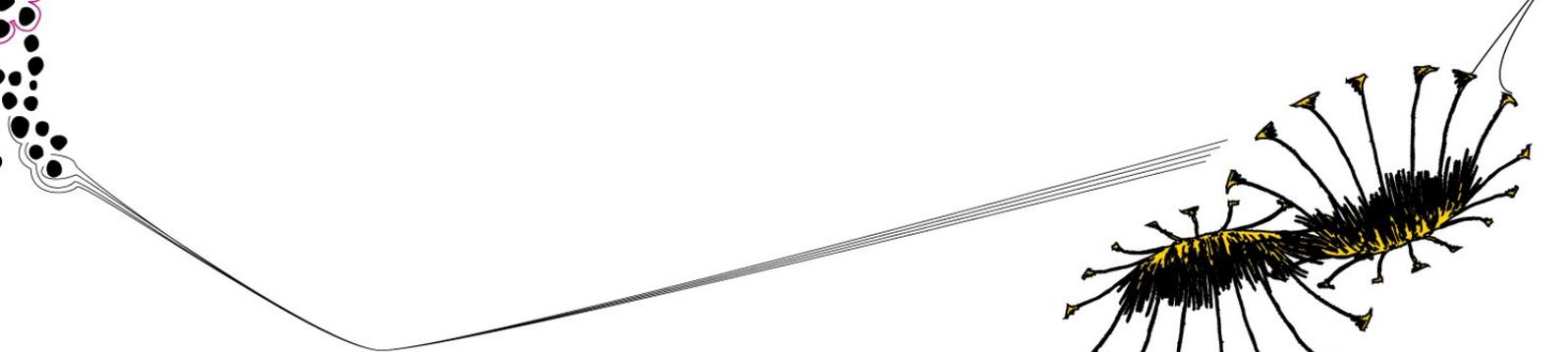
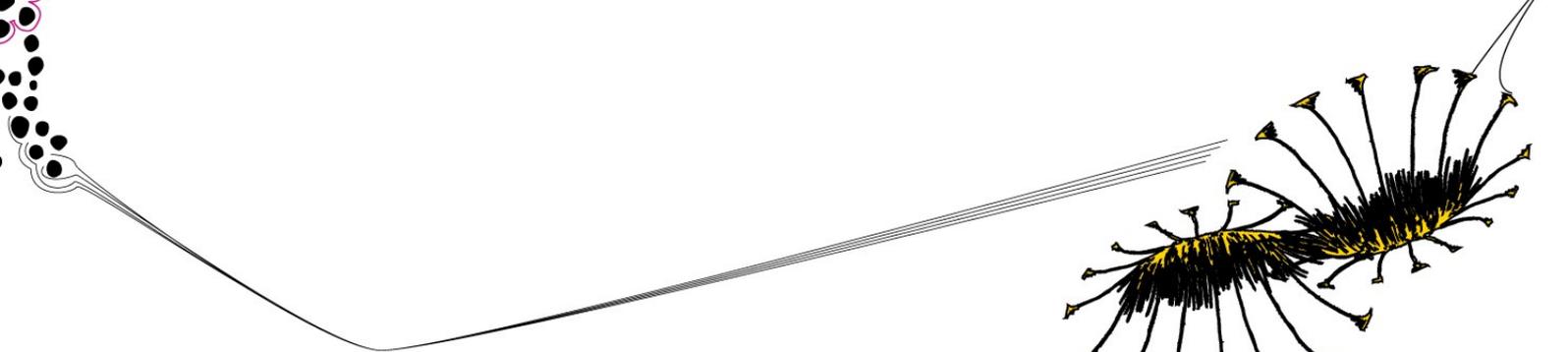
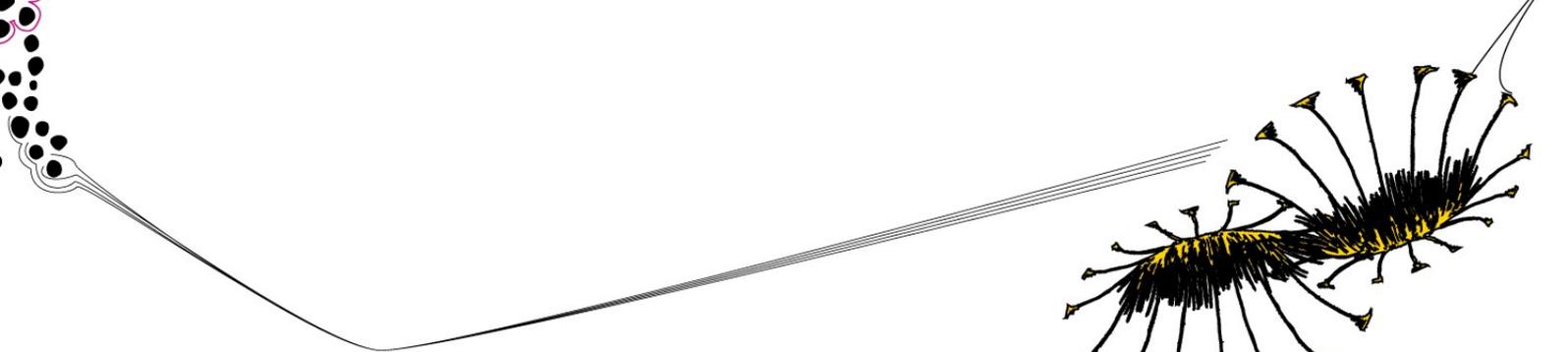
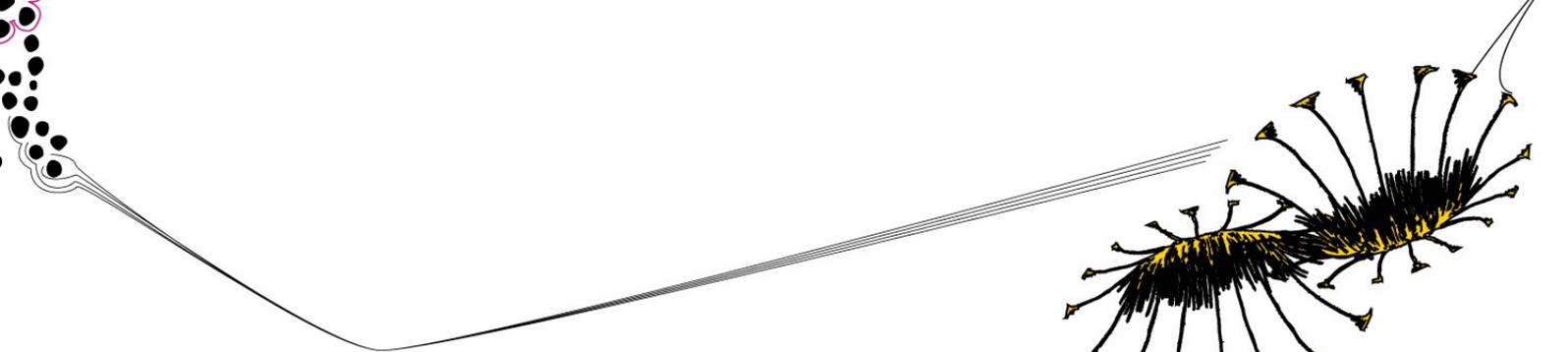
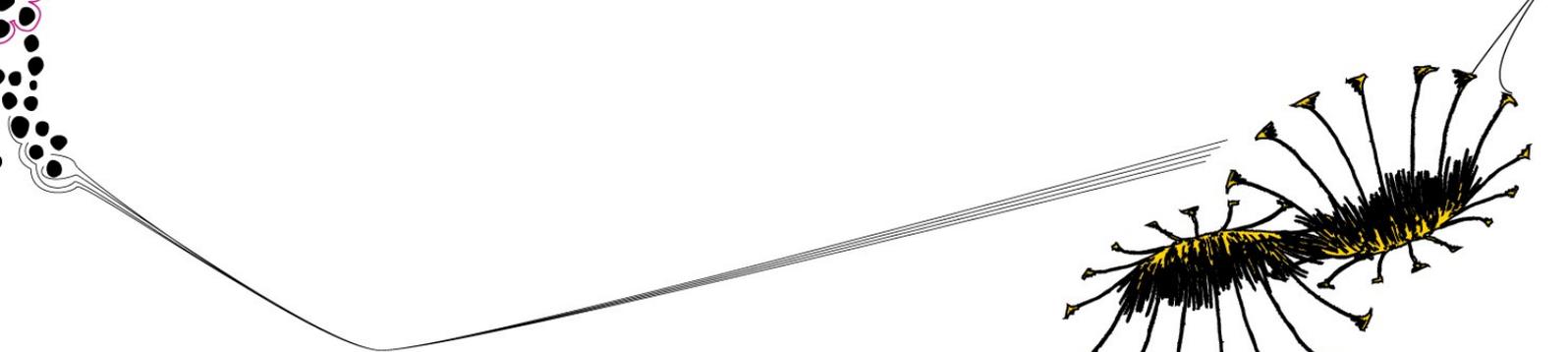
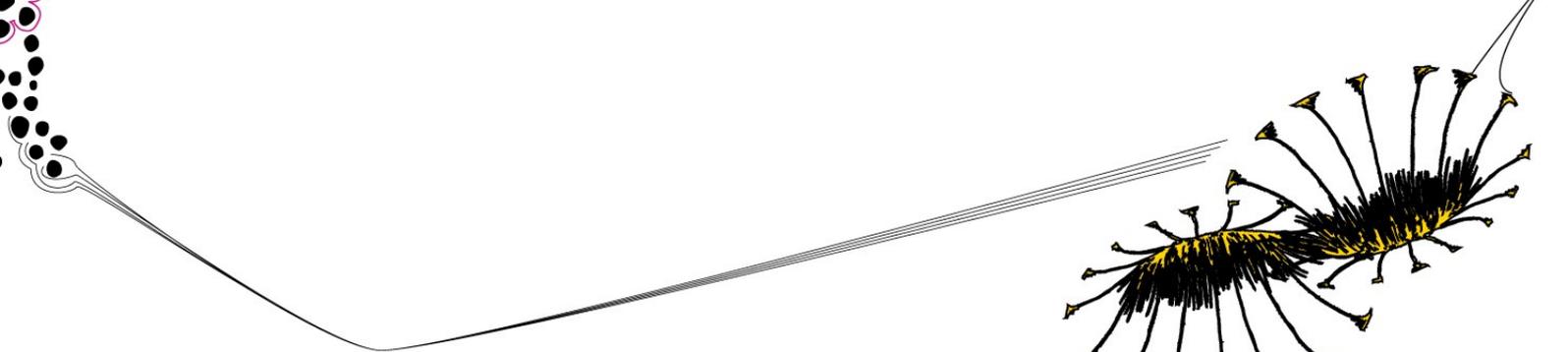
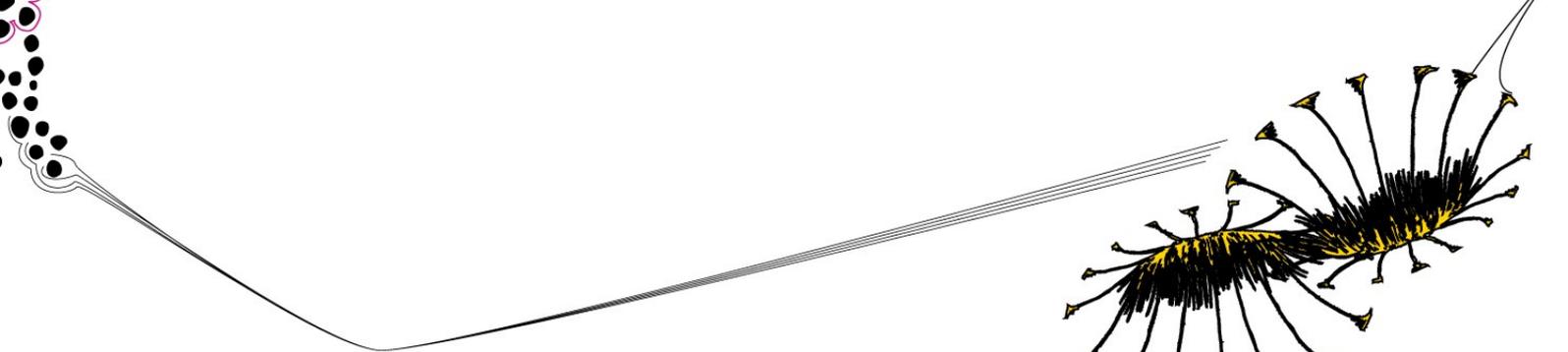
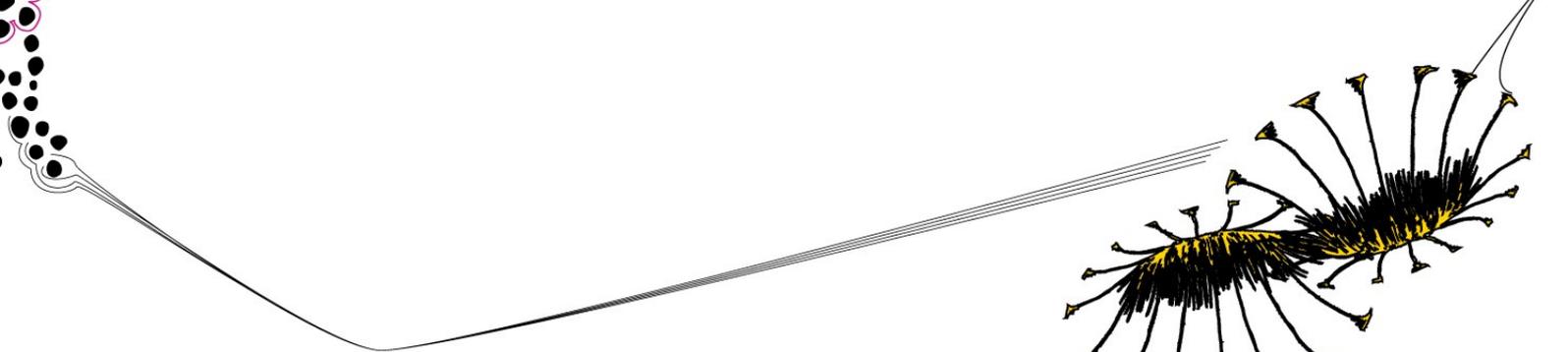
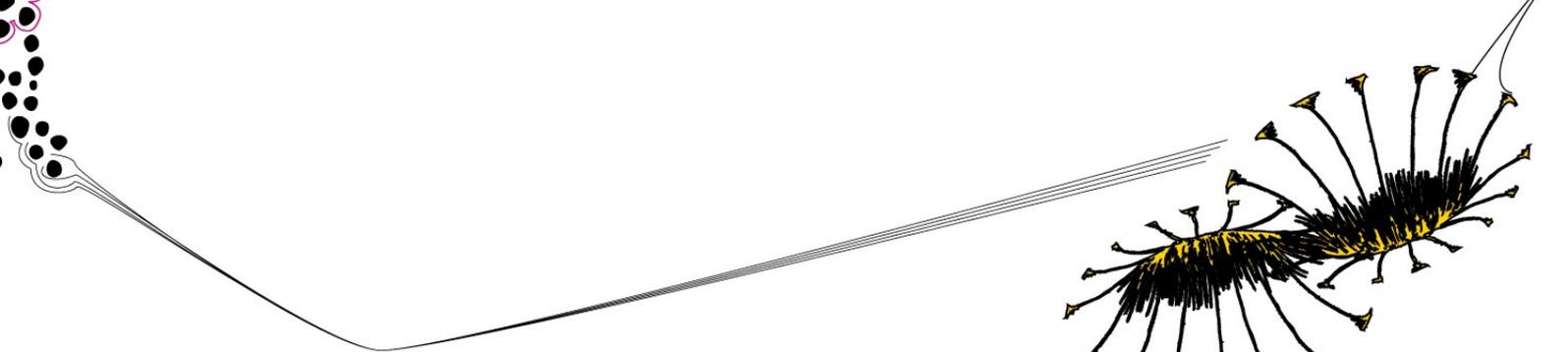
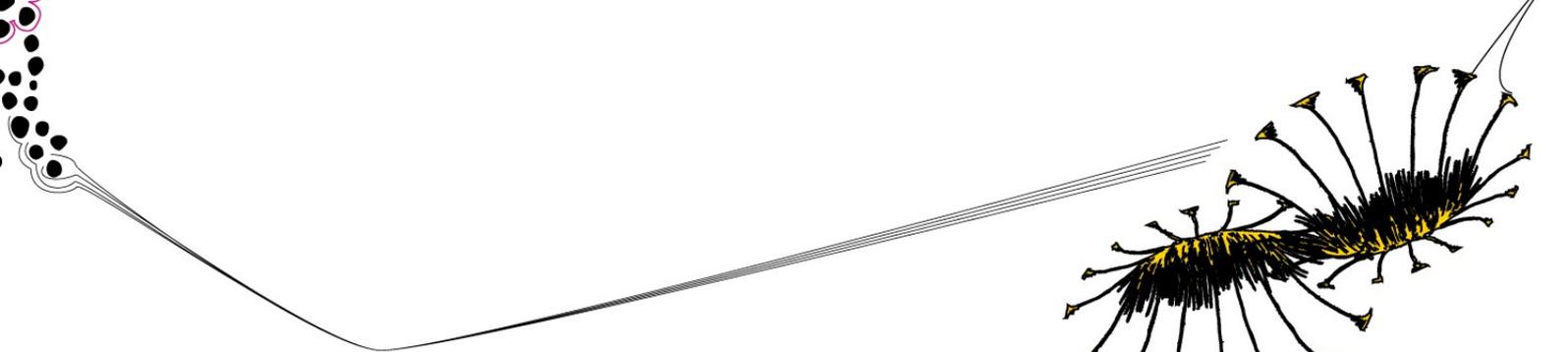
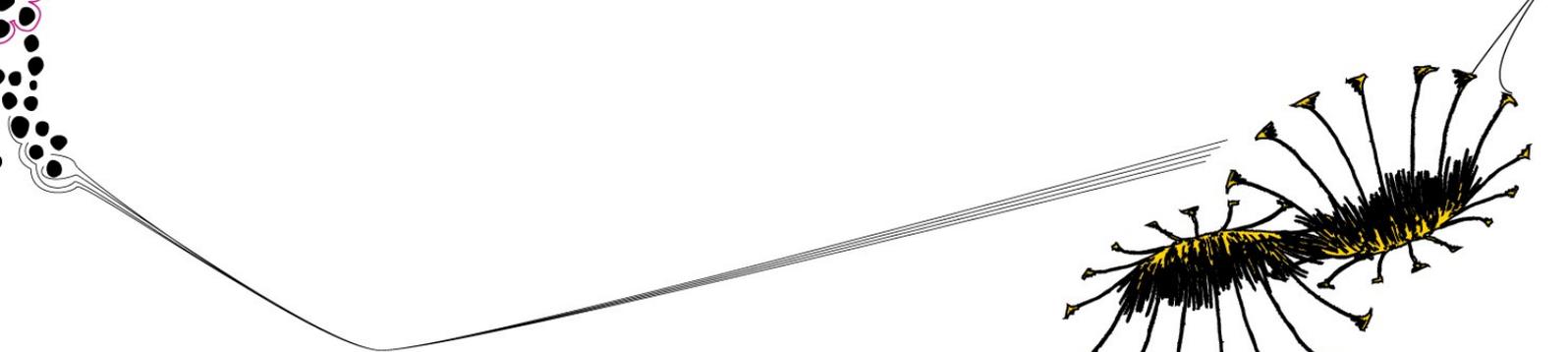
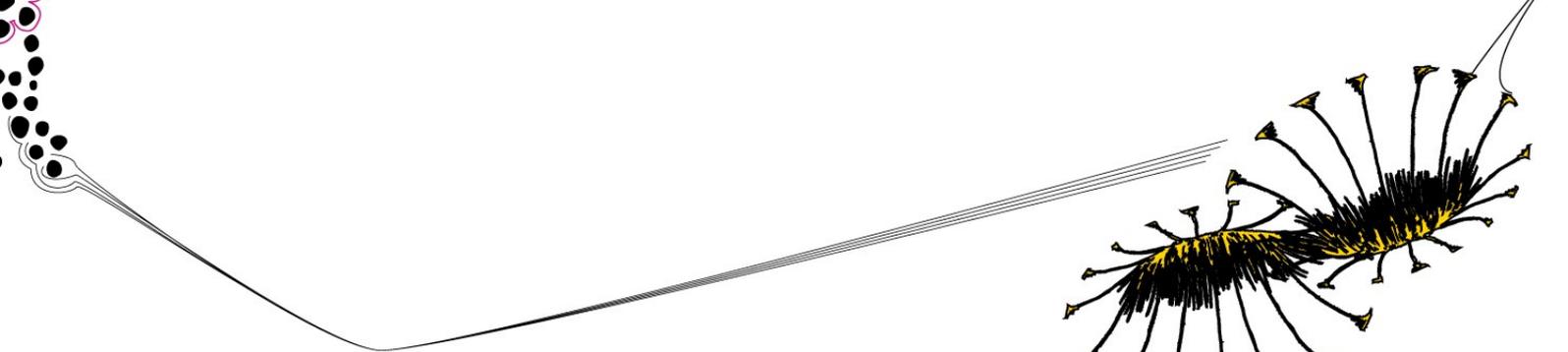
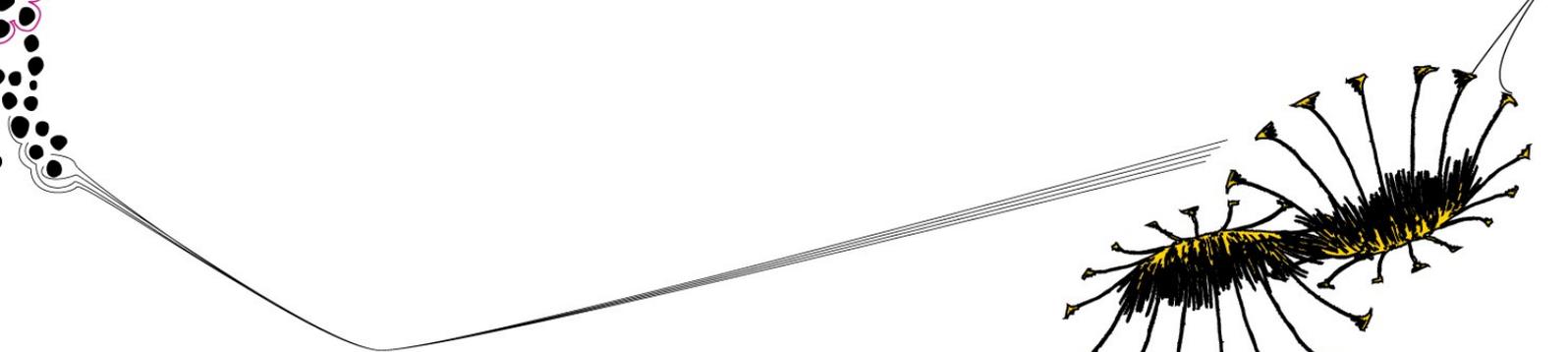
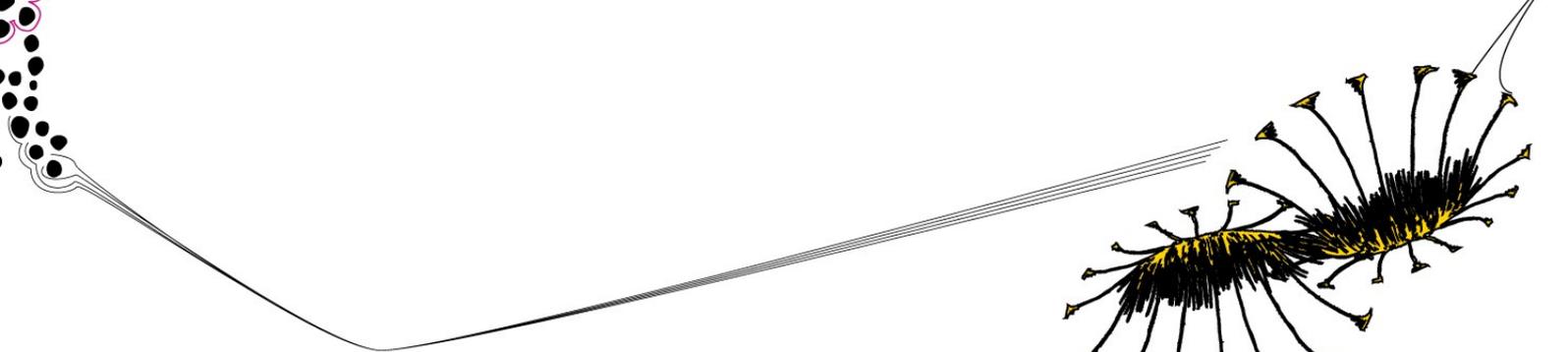
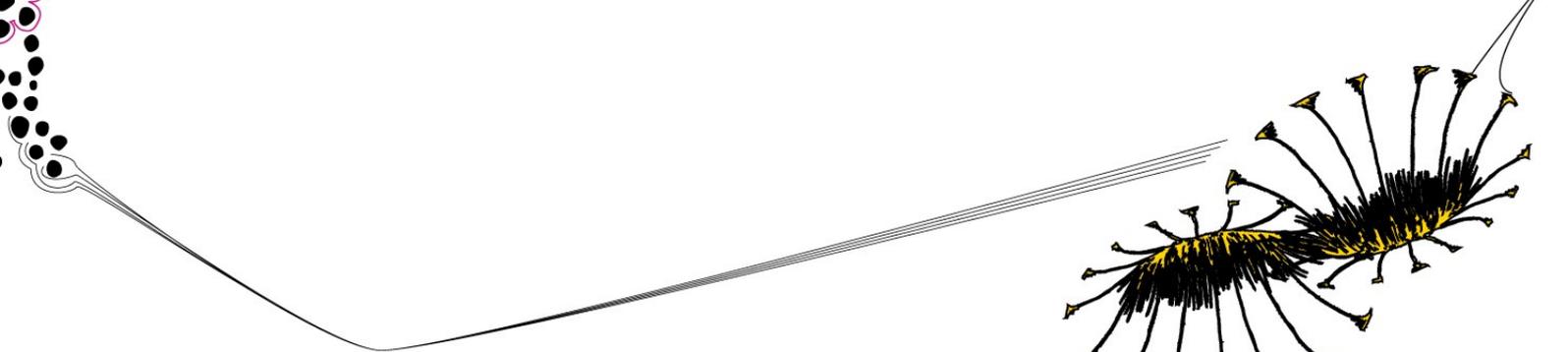
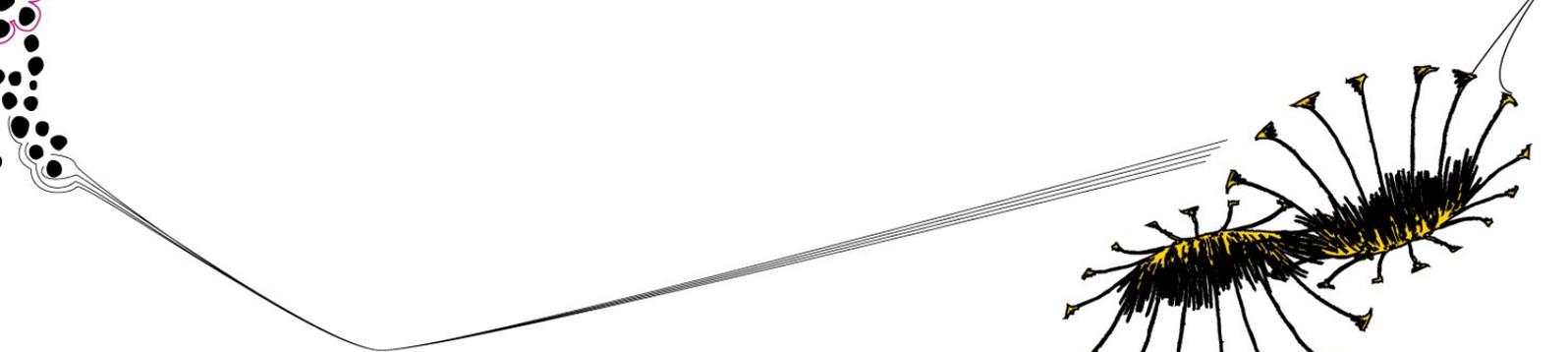
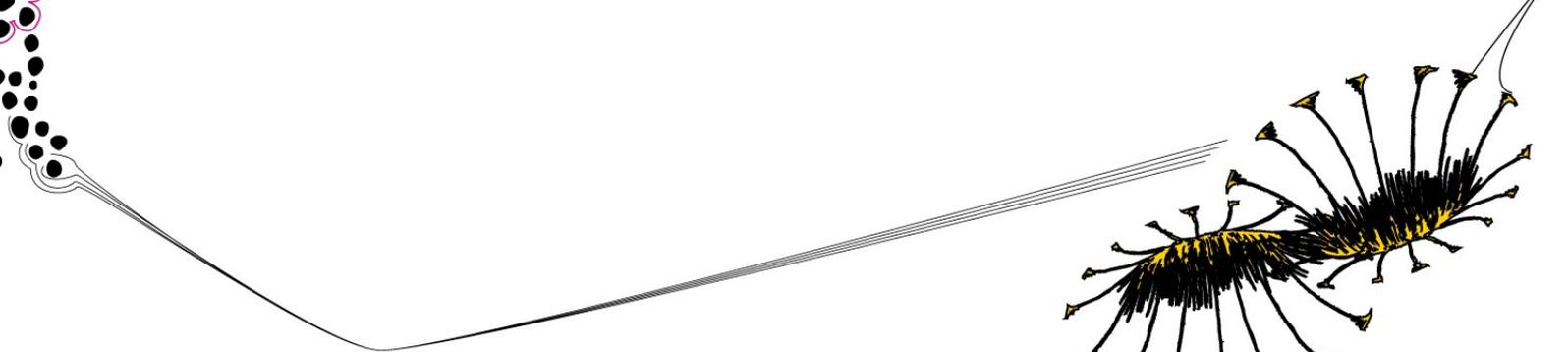
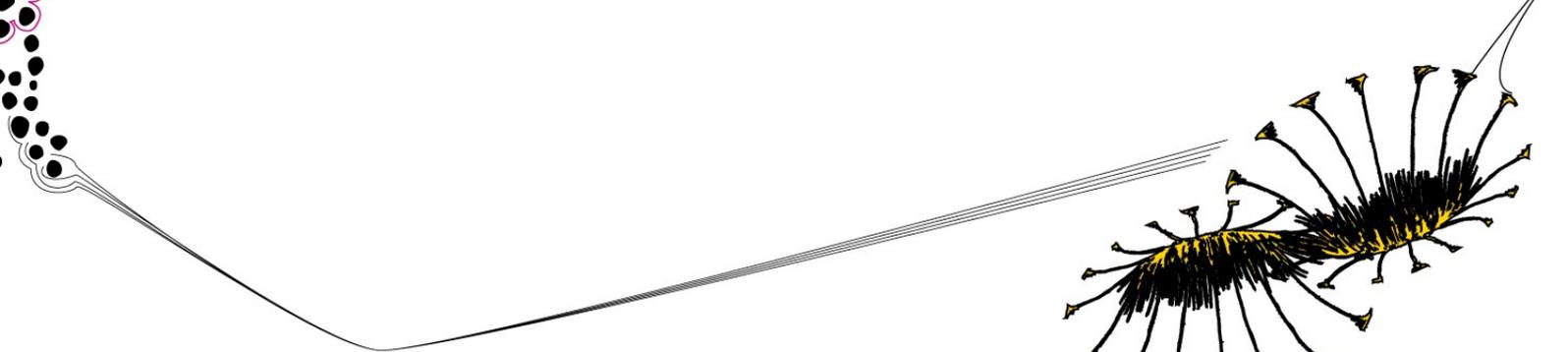
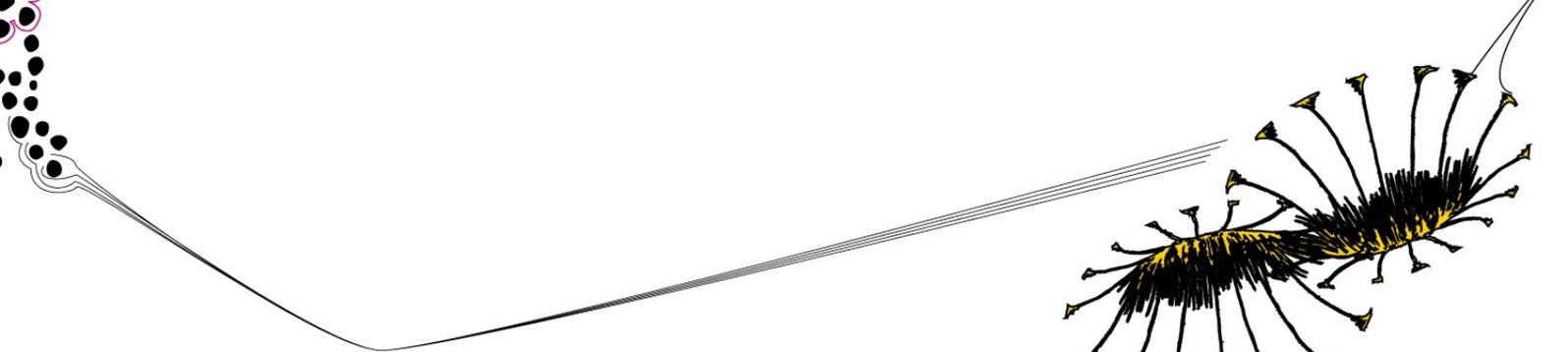
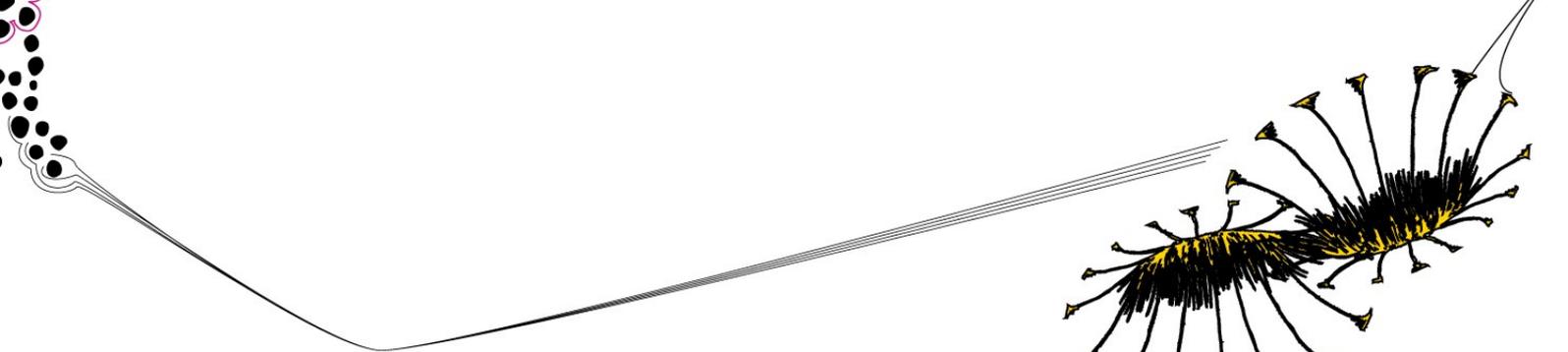
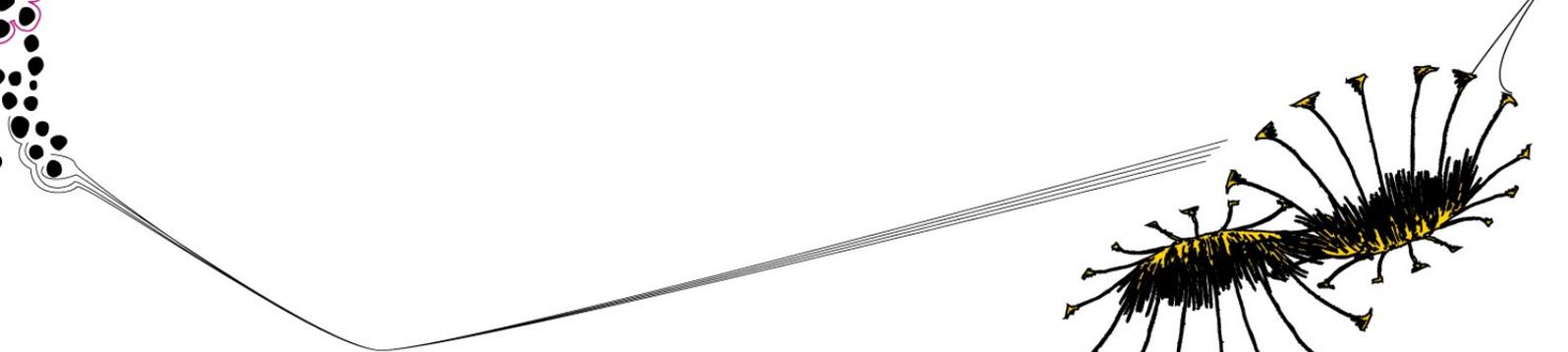
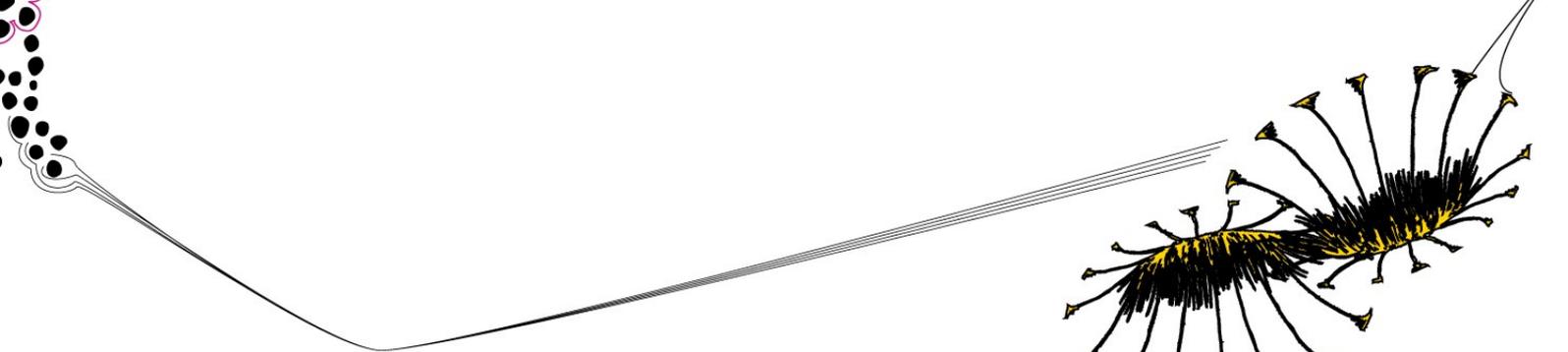
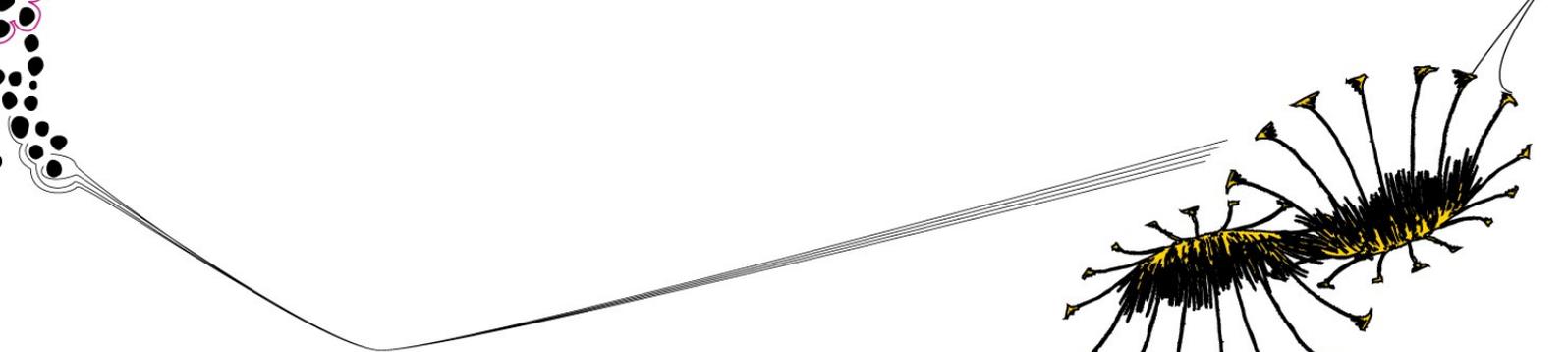
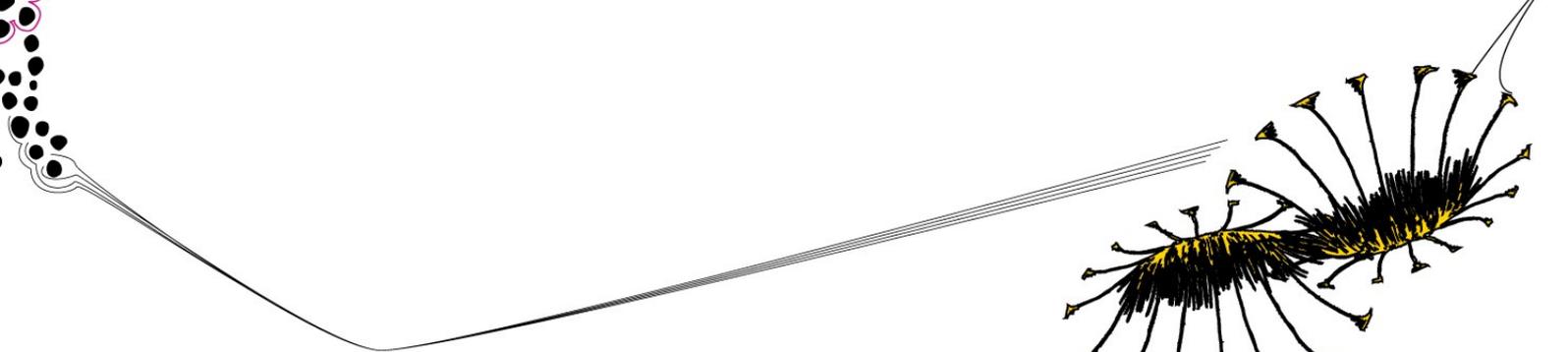
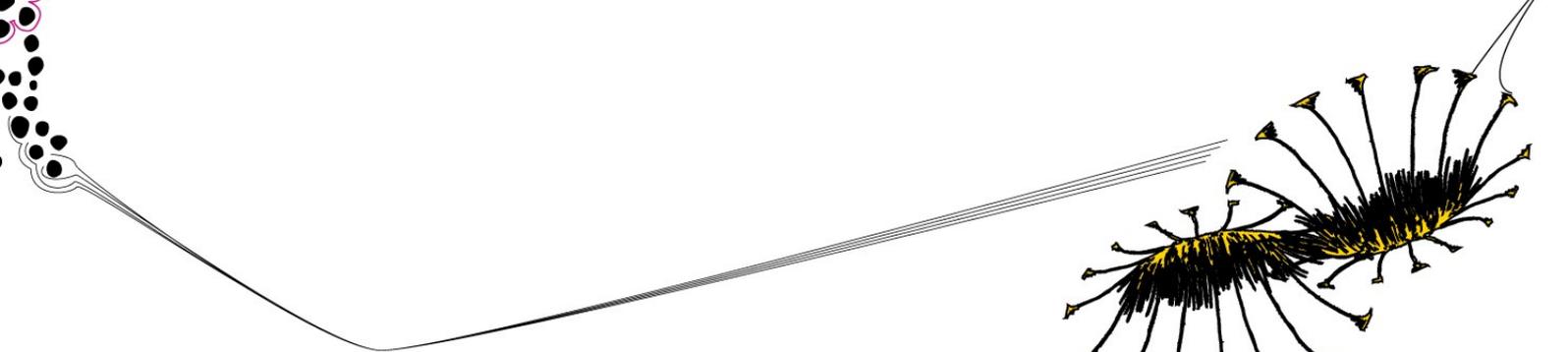
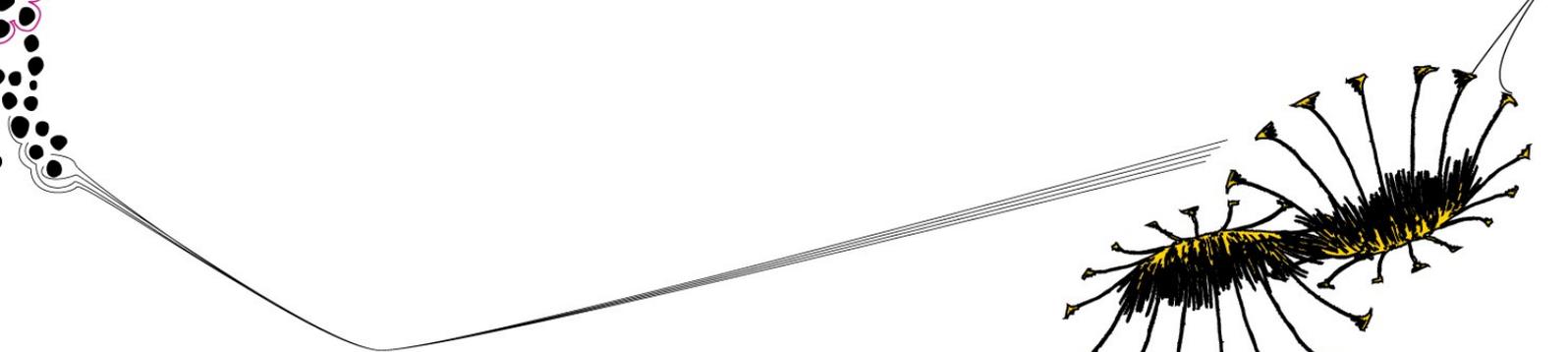
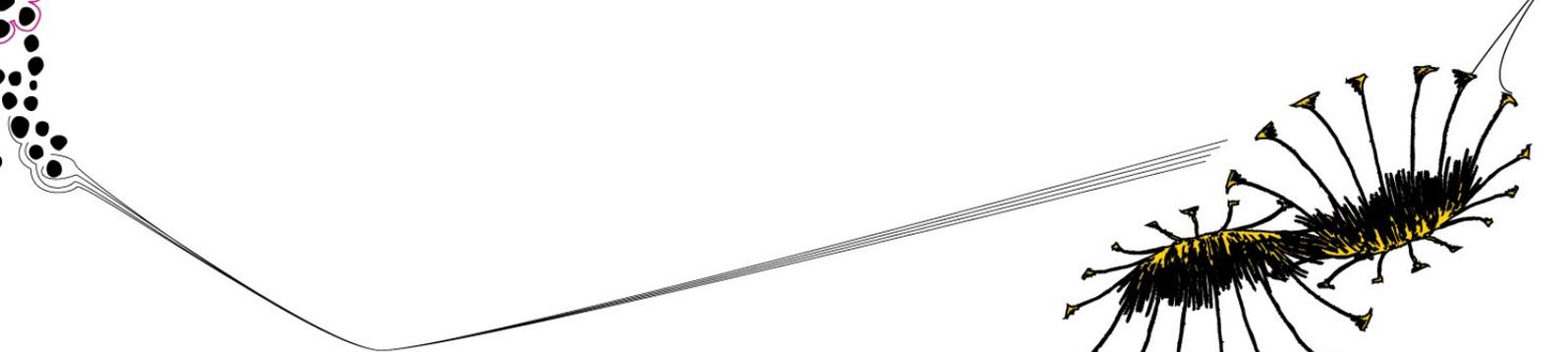
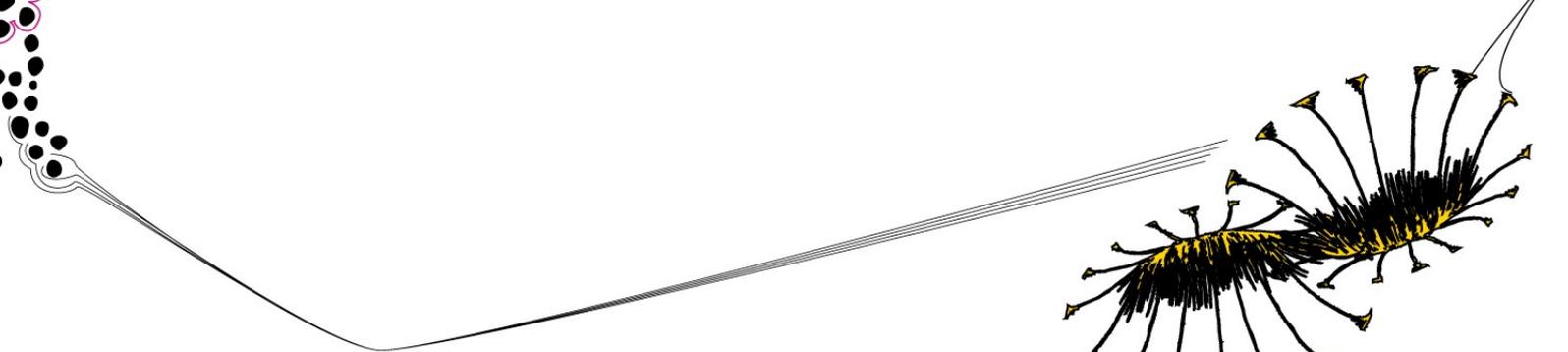
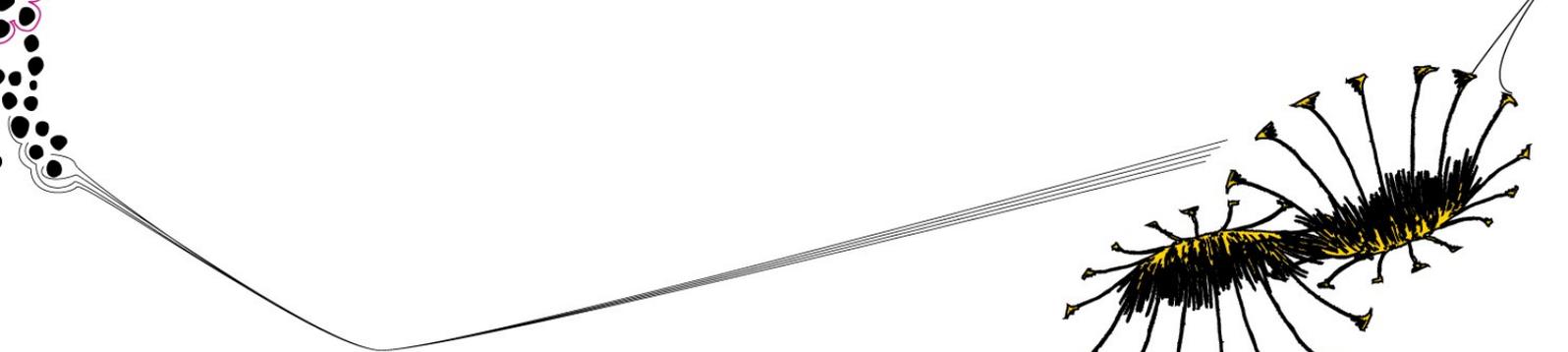
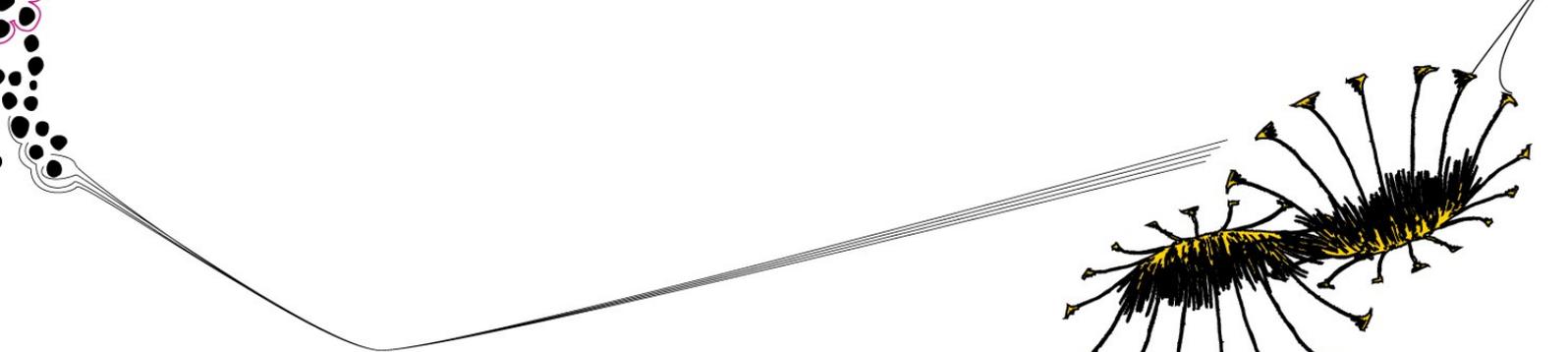
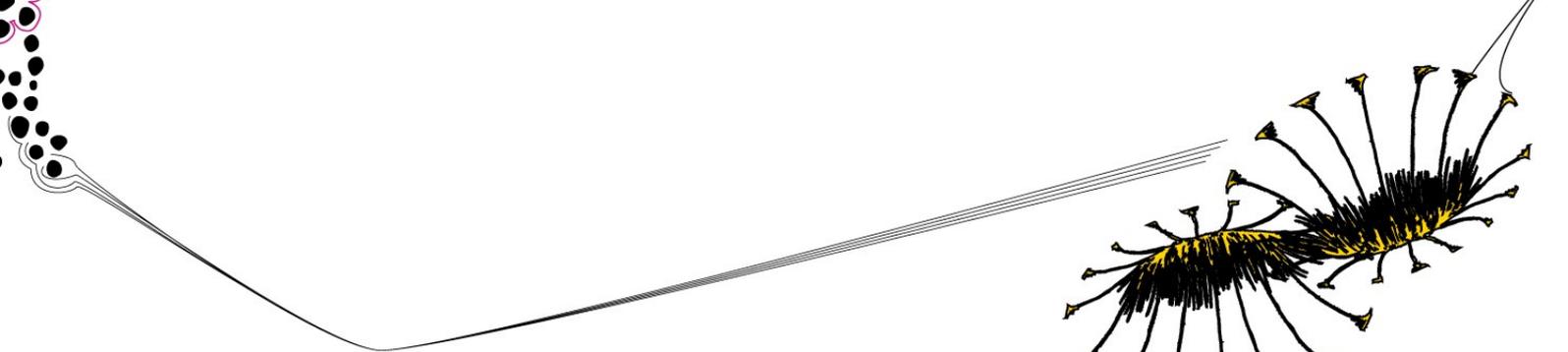
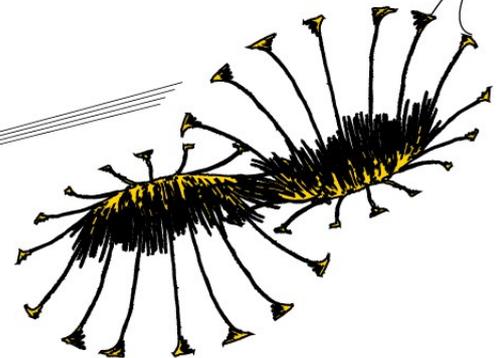
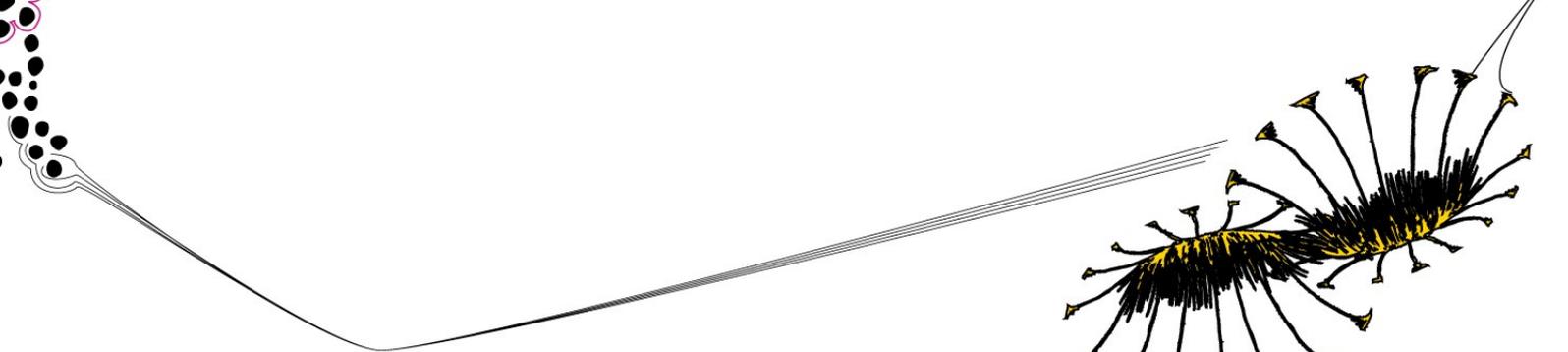


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1. INTRODUCTION

In an increasingly diverse society the institutions for higher education are faced with a more diverse student body, creating an ethnically, economically and culturally diverse student population. Within this diversity there is another, relatively anonymous, group of students: students with disabilities. This anonymity is due in part to the fact that students with disabilities are a varied group who are low in numbers, when compared to the general population. In an ideal, state students with disabilities would be able access all parts of their education and have the ability to participate to the full extent of their potential, just as any other student. However, the inclusion of students with disabilities is often seen by educational institutions as a challenging proposition. Research on the topic of student disability literature reflects such challenges and shows that students with a disability are often confronted with difficulties in accessing and participating in tertiary education (Tinklin & Hall, 1999; Holloway, 2001; Shevlin, Kenny and McNeela, 2004). Educational institutions may aim to achieve such inclusion and equality through the construction of a student support system and a facilitating structure for a diverse student body in order to create an inclusive institutional environment. When such an environment is not present the difficulties experienced by students with disabilities can create barriers, which may result in a loss of talent and opportunity.

The University of Twente is one of those institutions for higher education who is currently dealing with the question of how to secure the inclusion of students with disabilities. The University of Twente recently implemented a new education model for their bachelor programs: Twente Education Model (TEM). The educational model builds on five key principles: modular education, project based, student responsibility, cooperation and a quick introduction on the subject (University of Twente, 2013). However, do students with disabilities have access to this educational model and are they able to participate to their full potential, as institutions of higher education often struggle in this regard?

Furthermore, the question concerning the inclusion of students with disabilities does not exist in a vacuum and should be seen within a broader context. Therefore, the new educational model of the University of Twente and support system for students were placed in the context of national, European and international legislation and guidelines. On the national level, the Dutch constitution grants the right to education and several legislative pieces prevent discrimination based on disability; creating a mandate for facilitation of students with disabilities. Complementing the national pieces of legislation several national and international guidelines were examined: the guidelines of Commission Maatstaf, the UN convention on the rights of persons with disabilities (CRPD) and the European Disability Strategy 2010-2020 in relation to disability in an education setting. The combination of these legislations and guidelines create an imperative for institutional inclusion of students with disabilities, as the goals mentioned in these legislations and guidelines do not only play a role in the policies of the national government but also play a role at the institutional level of education.

In attempting to find a framework for this study it became clear that questions concerning equitable outcomes cannot be answered by purely an inquiry into the broadly stated (inter)national legislation and guidelines. In order to be able to give a suitable answer to these questions it is important to articulate the merits on which the level playing field should be devised. Concepts such as a level playing field are mostly sought after through the paradigm of equality of opportunity: focusing on equalizing the opportunity rather than the outcome. Consequently, examining the theory of equality of opportunity is central to understanding the concept of a level playing field and the foundational concept on which facilitation is to be exercised. After establishing what is to be facilitated and the theory of the social model of education was used to understand the role of educational institutions. The social model of disability takes a normative stance on disability and provides a compelling theory on the implementation of the philosophical foundations laid out in the theory of equality of opportunity. The theory, legislation and guidelines culminate into the current situation surrounding the inclusion of students with disabilities at the University of Twente. This paper will focus on investigating what, if any, challenges are present at the University.

1.1 RESEARCH QUESTION

In order to ascertain whether such difficulties are present at the University of Twente the chosen method is to explore the inclusion of bachelor students with a disability at the University of Twente under the new model to provide an analysis of the institutional functioning. Therefore, the aim is to shed light on ability of the University of Twente to include students with disabilities in their educational program and place these findings in a national and international context using the legislation, guidelines and conventions that are in place. Consequently, the following research question is formulated:

Is the University of Twente able to offer bachelor students with disabilities the opportunity to fully access and participate in higher education?

In order to answer the research question the following sub questions were designed:

- What constitutes equal opportunity for students with disabilities in an educational setting according to literature, international guidelines and national guidelines?
- What facilities and guidelines are there currently in place for students with disabilities at the University of Twente?
- How do students with disabilities perceive the supportive structures and processes of the University of Twente?
- How does the experienced practice at the University of Twente compare to international guidelines and national guidelines?

In order to understand the institutional ability to offer similar levels of access and participation it is of importance to investigate the meaning of equality of opportunity as a foundational concept. Sub question one revolves around the theoretical debate concerning the notion of equality of opportunity and the application of the concept unto an educational context. Discussing what should be equal and when differences are justified, related to the notions of circumstances, effort and type as factors in that evaluation.

After establishing the theoretical and ethical foundations for equal opportunities the role of the institution will be analyzed through the lens of the social model of disability: scrutinizing the influence of the institutional and social environment on the manifestation of impairments. The investigation of the institution through the lens of the social model of disability relates to sub question two, placing the facilities and structures in place in the theoretical context. The facilities and theoretical context are supplemented by a description of the legal context in the Netherlands as well as the international and national guidelines concerning students with disabilities in higher education, providing an integral overview to create contextual clarity whilst providing depth in assessing student experiences

Student experiences with the support structure of the University of Twente were gathered using the theoretical framework which amounted to the construction of an interview guide covering key aspects of student inclusion. This led to an institutional analysis through the experiences of students with disabilities. In which experiences of students with disabilities with the supportive structures and processes of the University of Twente were investigated and placed within the theoretical context of equal opportunity and the social model of disability. Consequently, providing the necessary insights to answer sub question three.

Whereas the institutional analysis focused on the analysis of student experiences in relation to theory, the contextual analysis revolves around defining and comparing the main findings of the institutional analysis with the national and international context: relating the findings of the contextual analysis to answering sub question four. In doing so, providing explanation for the practice at the university and offering an exposition of findings when placed in a broader context.

2. THEORY

To provide an adequate theoretical framework for answering the research questions it is of importance to specify the models used to answer them. This paper relied on the theory of equality of opportunity and the social model of disability for theoretical foundation. In this chapter the aim is to provide an overview of theory on equality of opportunity and the social model of disability: relating them to what should be equal, and therefore facilitated, in the case of disability and education. These theories were supported by prior research on the inclusion of students with disabilities in higher education. Furthermore, it was examined how these theories related to the context of national and international legislation and guidelines.

2.1 EQUALITY OF OPPORTUNITY: WHAT SHOULD BE EQUAL?

The theory of equality of opportunity finds its roots in early work by Rawls (1971), Dworkin (1981) and Sen (1985). These early authors framed a just society as a society which creates equality not by equalizing outcomes but by offering equal opportunities. Consequences of choices made after the equalized set of opportunities are considered to be the responsibility of the individual, not of society. This work was later expanded on, by amongst others, Roemer (1998), Scullion (2000) and Phillips (2006).

2.1.1 OUTCOME VERSUS OPPORTUNITY

Rawls (1971) formulated that justice and fairness stem from equality of opportunity rather than outcome equality. Outcome equality would negate individual choice and autonomy, whilst a disregard for equality or the disadvantages of groups would lead to an unjust society. To clarify how such principles are to be implemented in society Rawls (1971) introduced the maximin principle as a theoretical structure to aid society in the route to a fair and just system. In the maximin principle people are presented with a moral dilemma without the knowledge of whom of them this dilemma concerns. The principle functions with the assumption that people are rational and would therefore move to a position in which the most disadvantaged would be the best, since the people presented with the dilemma all could be the in the worst position due to lack of ex-ante knowledge of the dilemma. This lack of ex-ante knowledge can be seen as the veil of ignorance, which causes people to reach to the most beneficial outcome for a just society (Rawls, 1971). There are requirements for the maximin principle: firstly, as mentioned the greatest benefit is bestowed on the least advantaged position whilst each individual involved is guaranteed the whole of basic liberties of such a society, ensuring that no great loss is involved for everyone not in the weakest position. Secondly, each individual must have access to all positions and offices in such a society. However, in order to reach fair equality of opportunity it is necessary that such positions and offices are not only available to people but that the chances of success in them is also equal, so called fair competition.

By using a theory of justice and fairness which incorporates equality of opportunity, access and success Rawls (1971) laid the groundwork for equality of opportunity. Dworkin (1981) expands on the notion of a just society with his insurance market theory concerning distributive justice in relation to equality of opportunity. Whereas Rawls (1971) stated that a just society would be created by giving people equal access and treating them as equals, Dworkin (1981) asks: when do people have equal resources? If society merely treats people as equals in distributive dilemmas unjust and unequal outcomes will still be reached if circumstances of people are unequal. The example presented by Dworkin (1981) concerns people with severe handicaps, who will not have the same opportunity at the 'auction market', that is society, for their goods. In order to create parity this 'auction market' needs to be supplemented with a form of hypothetical 'insurance market'. Similar to Rawls' veil of ignorance, Dworkin (1981) asks how much insurance people would purchase if they do not know whether they are, or have the chance to become, handicapped. Thus creating a 'premium' of goods that people without such a disadvantage receive at the 'auction market'.

This structure would be sufficient to create a just form of equality of opportunity since it would efficiently negate disadvantaged people (Dworkin, 1981). However, the question remains what circumstances are deemed sufficient to count as disadvantaged. Dworkin (1981) proposes a distinction between people and the disadvantaging circumstances by stating that personal preferences, beliefs, tastes and desires are beyond the scope. Hereby, only including inequalities that individuals do not have choice in; circumstances prior to anything that could be addressed as individual responsibility.

The notion of choice, circumstance and capability is also addressed by Sen (1985) who focuses on the personal and moral significance of preferences to an individual. Sen (1985) claims that solely focusing on the availability of goods or the equalizing of chances to societal offices ignores the importance of individual well-being and personal preferences. What defines people in society is not merely their circumstances of their opportunities; preferences are also defined by what people envision as valuable which in turn impacts the perception of opportunities (Sen, 1985). In judging what people's preferences are it is of importance to analyse how preferences are formed and how they adapt to circumstances: when people are deprived of goods or services their expectations and preferences can also move to a lower level. Sen (1984) calls this adaptive preference formation. Furthermore, whilst equal access to goods are a means of input in reaching desired preferences, the ability of people to convert resources into 'functionings' that are valuable to them creates real equality. Hence, the capabilities model focuses on the conversion of resources into "functionings" which in turn produces a specific output. Therefore, in order to evaluate equal opportunities in relation to personal preference it is of the essence to include aspects such as: freedom of choice, individual differences in conversion ability and immaterial factors (Sen, 1985).

The early theory on equality of opportunity focussed mostly on the shift from outcome equality to equality of opportunity and the question of what should be included in evaluating opportunity. Providing a level playing field for people with disabilities falls squarely under the realm of equality of opportunity in the sense of it being, in many cases, a circumstance and not a choice. The impairments related to the disabled also put them at a disadvantage in converting their resources into "functionings", creating a situation in which they are not able to produce equitable outcomes for themselves nor are they able to "insure" against them beforehand.

In order to rectify unequal opportunities alleviation of consequences can be justified and supported by equality of opportunity theory, as Dworkin (1981) said it is not enough to treat people as equals; they are to be equals in effect not in name only. Nevertheless, the practice seems to be a balancing act in which it becomes evident that society is not necessarily supportive in its structure. This leads to a position in which circumstances are to be rectified for individuals and groups in society that they had no choice in, ex-ante inequalities. However, how do inequalities relate to effort?

2.1.2 TYPE VERSUS INDIVIDUAL AUTONOMY AND EFFORT VERSUS CIRCUMSTANCE

A just society should seek to remove barriers to a level playing field by creating chances for success for all members of said society, yet personal autonomy and the effort made by individuals is not to be unaccounted for. Therefore the question is: should equality be reached regardless of individual effort, and when are individual characteristics to be seen as part of a larger societal group?

The concept of equality as described by Roemer (1998) revolves around central notion that outcomes are determined by group characteristics. These characteristics can then be translated into different types, in which a distinction can be made between the variation between types (circumstances) and the variation within the type (effort of the individual). In doing so, it creates a framework to categorizing individuals in society into different types with similar circumstances and comparing them within their peers instead of trying to reach a nominal level of opportunity (Roemer, 1998). However, the ascription and categorisation of individual characteristics to types strips most of the autonomy from the individual.

This creates a situation in which there is only a small margin of outcome differential, even with individual effort taken into account, since most individual characteristics are no longer the responsibility of the individual but of the type he or she is associated with. Hereby judgement on whether circumstances are fair or just on the basis of choice. If an individual belongs to a type with certain behavioural characteristics he or she cannot be fully held accountable (Phillips, 2006).

The notion that outcomes are decided on the basis of which group someone belongs to neglects the importance of personal autonomy and choice. Mason (2000) objects to the loss of autonomy and individuality, stating people are autonomous agents who should bear the consequences of their own actions. Nevertheless, this is not to say that circumstance or external forces do not influence decision making. Mason (2000) proposes that individual characteristic and group or type characteristics are not mutually exclusive. However in many cases the costs of choices, whether prompted by individual or type characteristics, are inequitable amongst genders, ethnicities or other categories. This creates the need to alleviate these costs if such a situation occurs regardless of the cause of the choice made. Therefore, if the aim is to reach a level of equality it is insufficient to simply give access to identical averaged wants. Ergo, there is a need to recognize that people have different preferences and should not be neglected from opportunity on the basis of such characteristics (Mason, 2000). However, this only offers a broad description or solution to the application of equality in society. Such applications would be subject to the personal prejudice of importance and sympathy concerning each individual situation it is applied to.

Nevertheless, it is important to recognize the differences and developments in theories of equality of opportunity. These different strands of thought can be categorized in two paradigms, namely: equality of opportunity as a goal and equality of opportunity as a principle. The first paradigm is one which is, in practice, impossible to achieve and therefore only has a philosophic character whereas the second paradigm frames equality of opportunity as a principle in which a balance between equality and autonomy needs to be reached. While the impossibility of an ideal type of equal opportunity or a completely level playing field is clear, this should not be a deterrent for a pragmatic approach to alleviate clear obstacles people face in which they had no part in. In the latter, more pragmatic, paradigm Philips (2006) argues that a balance between equality and autonomy is not enough to foster equality of opportunity and that the responsibility of an individual should be taken into account. In other words, one needs to strive for 'equality in the things for which we are responsible and difference in those of which we are not responsible for' (Philips, 2006, p. 21). Therefore, in order to create a fair form of assessment it is of importance to identify obstacles and constraints, allowing the individual to overcome circumstances beyond his or her control and enter the level playing field of society.

2.1.3 EQUALITY OF OPPORTUNITY AND EDUCATION

While some of these practical challenges of students with disabilities indeed revolve around the level of support or the need for special policy Scullion (2000) discusses that awareness, empathy and insight into the reality of disability for the disabled is often lacking. The lack of insight, empathy and awareness in turn causes a lack of attention and in some cases misguided notions regarding perceptions of students with disabilities. In not sufficiently addressing these issues education is neglecting its role to educate in a manner that creates professional and scholars that are mindful of diversity as well as its role combating stereotypes based on prejudice (Scullion, 2000). Therefore, education has a role in combatting unequal standing and supporting a level playing field. For institutions of higher education this means that means that diversity should not be a hindrance to maximizing talents, yet the question remains to what extent can one reasonably expect facilitation?

According to Roemer (1998) equality of opportunity should at least eliminate unequal circumstances to the best of the ability of society. In the matter of this research it concerns the concept of legitimate preferences, as expressed by Mason (2000), of students with disabilities in the form of the inclusion, participation and access.

However, it is important to examine preferences in light on attainable wants whilst not stifling talent and opportunities because of a disability. Related to this notion equality of opportunity should have restrictions in the burden it places on society. Unrealistic wants are not to be catered for by society, which would not be equal to a level playing field and create an undue burden (Frankel, 1971). However this begs the question: what is to be considered unrealistic? The judgment whether something is unrealistic or would bring an undue burden onto society could differ substantially depending on the group or institution: it is not unthinkable that the view of the university on the topic of how much aid is justified could differ than the views of civil rights groups or students with disabilities. This paper does not claim to fully answer what is just but will, in the analysis provide a comparison of the situation at the University of Twente with the theory and (inter)national legislation and guidelines. However, in order to correctly assess the burden on the disabled individual as well as the burden on society it is necessary to give substance to the concept of disability and impairment. The social model of disability provides additional insight into these areas, specifically: the influence of society and the effects of societal constructs on the manifestation of impairments for people with disabilities.

2.2 SOCIAL MODEL OF DISABILITY: WHAT DISABLES?

The social model of disability concerns itself with what causes the manifestation of impairments. This paradigm has ties with minority studies and views the concept of disability as a value neutral concept (Boxall, Carson & Docherty, 2004). The central question is what causes people with a disability to be unable to fully participate in society? Literature mentions two distinct views on the matter: the social model and its antagonist the medical model. The medical view of disability is influenced by a definition of normality and medical science (Oliver, 1990). In this model disability is seen as a problem of the individual: impairing their possibilities and hindering their medical and social well-being. This means that all hindrances a person faces stem from a medical issue in the body or mind of that individual and are to be rehabilitated or cured (Shakespeare & Watson, 2001). Within this model interactions with society and institutions are not taken into account and the burden of disability, in conjunction with rehabilitation, rests on the individual. Whereas, the social model of disability sees the disabling nature not in the ailment but in the social treatment of that ailment in society (Boxall, Carson & Docherty, 2004). The move towards the social model was at first a reaction to the medical model, however overtime it became the centrepiece of disability studies (Shakespeare & Watson, 2001). The social model sees disability as neutral and the impairing consequences of disabilities in the body or mind are due to the way they are handled and treated by society. Therefore, society can create barriers which hamper the disabled and create oppression. Failure to address these barriers results in impairments and exclusion (Boxall, Carson & Docherty, 2004). Hereby redefining disability as a societal issue of oppression, impairment becomes the product of society rather than of the disability of the individual (Campbell & Oliver, 1996).

The social model of disability has its roots in two different paradigms: the British paradigm and the United States paradigm. The definition of Campbell and Oliver (1996) as stated above closely aligns with the British social model of disability. This paradigm rest on three key foundational pillars: the claim that disabled people constitute an oppressed group, the distinction between impairment and disability in which the disability is the physical or mental flaw which is separated from the societal effect that impairs this individual, and the defining feature that disability is social oppression not a form of impairment. The paradigm developed in the United States shares the distinction of impairment and disability yet sees the disabled as disenfranchised much akin to a minority group. The difference has caused the United States paradigm of the social model not to label disability as social oppression, rather choosing to see at as an equal rights minority issue. This distinction has not gotten much attention in literature; however it resulted in a fragmentation in disability studies (Shakespeare & Watson, 2001).

Nevertheless, the shared notion of distinguishing between disability and impairment has come under criticism. As the dominant position of the theory rose, critics began to focus on certain inadequacies within the social model of disability.

Most of the critique focussed on the denial of the causal link between disability of the body or mind and disability in a social context. Bury (2000) addresses this by stating that denying the linkage also denies the daily reality of disabled people; the reality of care, experiences in daily life and the illness itself which have very real effects on the individual. Furthermore, Gabel and Peters (2004) underline the relevance of parts of the medical model as such that disabled people often actively participate in medical decisions within the social model of disability. By entering in and participating in such decisions there is a certain level of acceptance of the relevance of the model: the effects are real as far as losing certain bodily or mental functions due to illness has predictable effects for the individual. These effects are not solely caused by society at large yet, as Shakespeare and Watson (2001) state that: 'people are disabled both by social barriers and by their bodies. This is straightforward and uncontroversial' (p. 19).

However, where does this leave the theory? As Light (2000) suggests that criticizing without offering alternatives is doing more damage than it furthers understanding of the concepts there is a need for new viewpoints of the concepts of the social and medical models of disability. Moving beyond the divide are Shakespeare and Watson (2001) who previously were staunch defenders of the 'pure' social model now recognize the need to incorporate more aspects into the model and look at impairment and disability as connected rather than divided. On the other side of the spectrum Bury (2000) acknowledges the impact of culture, circumstance and social aspects on the effects of impairments and disabilities. Bury (2000) proposes a socio-medical model of disability which defines impairment as the inability of disabled people to engage in activities in a normal manner. The cause of the inability is the disability, yet in the manifestation of the inability society through the cultural and social treatment play a significant role (Bury, 2000). Hereby, showing the direction of the literature is one that moves towards a more loosely defined concept that incorporates both the medical and the social aspects of disability (Gabels & Peters, 2004).

Summarizing, the social model of disability is concerned with the barriers that people with disabilities face in society and focuses on a pro-active approach, enabling the disabled person to engage in all activities on equal footing. Failure to address these barriers results in impairments and exclusion (Boxall, Carson & Docherty, 2004).

2.2.1 SOCIAL MODEL OF DISABILITY AND EDUCATION

In order to achieve inclusivity it is important that students with disabilities are not overlooked by failing to include them in program design nor in research (Holloway, 2001). Riddell (1996) underscores the notion of equal footing by stating that the starting point should always be to address the challenges for disabled student as part of the general needs of the student population, normalizing and including differences rather than excluding them from the normal range of needs. This normalization of a certain range of disability would work against wrong notions of reality since the issues of people with a disability are included in the general policy instead of separating them from the group. This inclusion does not mean that specific needs or individual cases would not require attention on a case by case basis; it means that support for disabilities is considered normal and specific attention would be an addition rather than a parallel track.

European institutions of higher education are encouraged to provide an inclusive and accessible environment to students of all needs. However, the participation of students with disabilities in higher education is not self-evident, since most higher education institutes are inaccessible and unwilling or unable to provide the necessary support (Barnes, 1991). Leicester and Lovelli (1994) ascribe this notion to a lack of awareness regarding disabilities. For the students this means that they have to negotiate an environment which was not built for them. Leading to a situation in which students can encounter many obstacles that hinder them in fully participating in their learning environment.

2.3 PRIOR LITERATURE CONCERNING INCLUSION OF STUDENTS WITH DISABILITIES

Borland and James (1999) and Tinklin and Hall (1999) were the first to explore the obstacles encountered by the students with disabilities. Their research was based on national legislation and guidelines, institutional policy and the experiences of students with disabilities in higher education. The research of Borland and James (1999) emphasized the moral and ideological conflict evident within the educational institutions: focusing on the central concerns regarding the implications of policy, social values and the framework of student support. In their concept Borland and James (1999) pointed to three common concerns for students with disabilities. The first concern relates to the disclosure of having a disability; students can disclose their disabilities in different stages of their career, for example prior to their application, in the application form, in the first meeting with their tutor or at some other time during their first year. The moment in time students disclose their disabilities correlates with the way they are perceived by the institution. Disclosure after the initial application was perceived negative as 'special pleading. The second point of concern relates to the notion that there are no feedback systems in place which monitor and assure the quality of the needs of the students with disabilities. The third concern revolves around the limit access to all facilitations for students with disabilities.

The research of Tinklin and Hall (1999) covered 9 large institutions for higher education in the United Kingdom and aimed to map the policies and provisions of regarding disability as well as describe the experiences of the students with disabilities. One of their main findings was that students with disabilities have to overcome many obstacles that ideally would be removed, such as too narrow pathways between the bookshelves in the library for students in a wheelchair. The obstacles were conceptualized in the current model of provision which underscores and categorizes the different types of obstacles in: physical environment, accessing information, entrance to higher education, assumption of normality and levels of awareness (Tinklin & Hall, 1999). However, the current model of provision only functions when the student shares information regarding his condition and when the institution provides the students with information regarding possible supportive measures.

While Borland and James (1999) and Tinklin and Hall (1999) provided the first insights in the challenges of students with disabilities they focused strongly on policy, according to Holloway (2001) this left experiences of student with a disability underexposed. Therefore, she focussed on the inclusion of people with a disability in her research design, opting for a grounded theory approach with semi-structured interviews in order to generate new insights. The main findings of Holloway (2001) show that students with disabilities do not only face many obstacles in their studies, but that the disability also put an added increased financial burden on the student. Furthermore, students with disabilities spent significantly more time on organising their own study in relation to the general student population. Moreover, the burden on students was enhanced due to a lack of practical guidelines for employees and a lack of monitoring and evaluation of employee practice concerning students with disabilities (Holloway, 2001). In a similar vein to Holloway (2001) the research of Shevlin, Kenny and McNeela, (2004) was a modification of the current model provision, using that framework as the foundation of inquiry into the experiences of students with disabilities in relation to national legislation and guidelines and institutional policy. Shevlin, Kenny and McNeela (2004) used a similar approach to Holloway (2001) in that they chose for semi structured interviews in order to form grounded theory and the obstacles as laid out by Tinklin and Hall (1999). However, their research specifically focuses on the inclusion of the entire university not just a singular department. They reached similar conclusions concerning the obstacles and additionally concluded that awareness among staff and fellow students was lacking and that there was considerable variance in support between departments.

Related to the notion of lacking awareness are the results of the research by Tinklin, Riddell and Wilson (2004). Their findings suggested that the attitudes and knowledge of staff had a strong impact on whether students with disabilities had positive experiences, regardless of the structure or policies in place. Such findings suggest that the practice and environment for students with disabilities is reliant upon cultural and personal views of the people working in the institution.

These statements are supported by the research of Cnockaert et al. (2010) concerning the inclusion of students in Flemish higher education in light of the ratification of the CRPD. The researchers used qualitative in depth interviews, again in a similar vein to Holloway (2001) and Shevlin, Kenny and Mcneela (2004). Their main findings were that although students were formally included through the structures in place at the university they were not included in the culture. This meant that although there was a framework of support procedures, the actual awareness, empathy and a culture of inclusion were lacking in the experiences of the students. Related to this was the experience that students were the primary initiator of their needed adaptations and support. This fits with the medical view since the individual is responsible for his or her rehabilitation. Furthermore, student experiences regarding disclosing of their disabilities showed that this decision depended on the balance between the structural advantages gained versus the negative consequences.

The literature concerning students with disabilities in higher education makes evident that gaps between the needs and experiences of the students with disabilities and the provisions and support made available by the universities exists. These gaps can take several forms: a structural problem of the support framework (Tinklin & Hall, 1999), the perception of employees, which creates a lingering conflict between the medical and social models of disability (Borland & James, 1999), the disparity of structural inclusion and cultural inclusion (Cnockaert et al., 2010.), an increased burden on the student since staff actions were lacking (Holloway, 2001) and the inclusion of students with disabilities is lacking in the development of procedures and policies for the university (Shevlin, Kenny & McNeela, 2004).

2.4 THEORIES IN PRACTICE: LEGISLATION AND GUIDELINES

Equality of opportunity is considered by Pignataro (2012) to be the foundation of many political platforms as well as a guiding principle for policy in the field of distributive justice. This notion has, according to Pignataro (2012), made its mark on the politics and policy of the United States, as well as important legal decisions concerning disability and minority rights. The notion of equalizing opportunity and levelling the playing field is also clearly visible in the United Nation convention on the rights of persons with disabilities (CRPD) as well the European Disability Strategy 2010-2020. The CRPD sees equality of opportunity as one of its founding principles. With the EU fully supporting the CRPD it is, by proxy, a guiding principle for the European Disability Strategy 2010- 2020.

The dominant position of the social model has grown over the years, permeating most policy fields. The rise logically stems from the fact that policy is not a part of medicine and that for example educational institutions have little to do with diagnosis or rehabilitation. Leading to a social model paradigm in which institutions are able to act through facilitation. In this paragraph the interconnections between the CRPD, European Disability Strategy 2010-2020, the Dutch legislation and guidelines, the theory of equality of opportunity and the social model of disability will be investigated with the goal to form an overview of the most relevant aspects.

2.4.1 UNITED NATIONS CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES

In December 2010, two weeks after the introduction of the European Disability Strategy 2010-20 (European Union, 2010), the European Union ratified the United Nations Convention on the Rights of Persons with Disabilities (UN general assembly, 2007; United Nations, 2014). The ratification aims to empower people with disabilities enabling them to fully participate in society and combat social exclusion. However, ratification and implementation have not been concluded in the Netherlands, both are scheduled for 2015. The required steps to ratify the Convention of the Rights of Persons with Disabilities (CRPD) have been summarized by the Dutch government in the summer of 2013; one of the key recommendations in report was that the focus should be on improving labour market and education participation of people with a disability (de Jong, den Exter & Hulst, 2013).

The CRPD revolves around 7 Key principles: respect for individual freedom and autonomy, non-discrimination, full participation and inclusion in society, respecting and accepting differences, equality of opportunity, accessibility, gender equality and respect for the evolving capacities of disabled children (UN general assembly, 2007). While the CRPD does not provide a specific definition for disability it categorizes the term as “persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others” (UN general assembly, 2007, p. 4)

The rights granted in relation to education as well as full and effective participation are of the most relevance for this paper. As stated before, the progress report on the implementation of the CRPD in the Netherlands specifically singles out participation in education as a key focal point in national policy (de Jong, den Exter & Hulst, 2013). The key points concerning education in the CRPD revolve around accessibility of and inclusion in the education system at the primary, secondary and tertiary level (including vocational and adult education). This is to be achieved by offering the required support to create the opportunity for success in education, maximizing the individuals’ social and academic development. The CRPD safeguards these priorities and rights conferred in the matter of education in article 24 of the CRPD, which states that: ‘States Parties recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, states parties shall ensure an inclusive education system at all levels and life-long learning’ (UN general assembly, 2007, 14). Furthermore, access to and participation in education are no longer seen as a social right but as a basic human right. These basic human rights infer action to reach such equitable outcomes for which an assortment of possible measures is specified in the CRPD. In relation to education the CRPD affirms that people with disabilities enjoy the same human rights as everyone (UN general assembly, 2007).

The European Union (EU) and all of its member-states, including the Netherlands, are signatory to this CRPD. This signature and recognition of the CRPD places obligations on governments. These obligations are meant to further the rights of people with a disability as well as to protect them. The CRPD does not place direct legal obligations, however it means that state bodies can no longer pursue paths which are incompatible with the values stated in the CRPD. The general obligations levied on states can be viewed as concerned with legislative, policy and programmes that combat discrimination, promote the rights of people with a disability, counteract any disabling or CRPD breaching practices, ensure private sector awareness, promote training to professionals who work and deal with people with a disability in any field, promote research into the accessibility of goods and services and include people with a disability in consultation for development all mentioned activities (UN general assembly, 2007).

2.4.2 EUROPEAN UNION DISABILITY STRATEGY 2010-2020

By becoming a signatory and incorporating the goals of the CRPD in the European Disability Strategy 2010-2020, the strategy became more encompassing and structured whilst gaining in strength (European Union, 2010). The CRPD represents many elements which are put forward in the European Disability Strategy 2010-2020: anti-discrimination, equal opportunities and active inclusion. Furthermore, the rights under the CRPD are broader than the European Disability Strategy 2010-2020. The European Disability Strategy 2010-2020 focuses on 8 areas: accessibility, participation, equality, employment, education and training, social protection, health and external action (European Union, 2010). In other words, the strategy will focus on the full and effective implementation across the policy spectrum.

The focus for this research revolves around education which can be considered as a key pillar in enhancing the lives of people with disabilities. To reach this higher standard the European Disability Strategy 2010-2020 promotes accessible education systems as well as lifelong learning programmes. Accessibility and lifelong learning are to prevent people with disabilities from becoming isolated.

In order to reach the goal of accessibility students and pupils with disabilities are to be included and fully supported, not segregated and kept away from the possibilities granted by secondary or tertiary education. Furthermore, the European Disability Strategy 2010-2020 fully supports the CRPD and all of the proposed policy, measures and goals on education (European Union, 2010).

The policy challenge of disability rights and education also expands to the Bologna process. The Bologna process has been the main European coordination and alignment process regarding higher education aiming at compatible degrees throughout the European Union whilst safeguarding quality (European Higher Education Area, 1999). Nyborg (2004) discusses that the Bologna process is more than exam recognition and standards for degrees. As the origins of the social dimension of the Bologna process tracks back to 1998, the year in which the Council of Europe handed out recommendation 98 (3) discussing the access to higher education: 'People with disabilities should be given equal opportunities to participate in study, research, and employment in higher education, and physical and systemic barriers to their participation should progressively be removed' (Council of Europe, 1998, p. 22). The Bologna process further qualifies this as the social model of education and underlines the importance of inclusive education that is flexible, accessibility and supportive (Nyborg, 2004). The status and recognition of education as a basic human brings about policy challenges on national but also institutional level. One of these challenges is equal access and support for students with disabilities, of which the legislations and guidelines for the Netherlands will be explained in the next subchapter.

2.4.3 POLICY, LEGISLATION AND GUIDELINES IN THE NETHERLANDS

In 2015, the CRPD on rights for persons with a disability will come into effect in the Netherlands, granting rights to citizens with the goal of removing all barriers to participation in society (United Nations, 2014). This paper focuses on disability and participation in higher education. The inclusion and accessibility of Dutch higher education is specifically mentioned as a challenge in the progress report concerning the implementation of the CRPD (de Jong, den Exter & Hulst, 2013).

Three specific pieces of legislation deal with education and disability in the Netherlands: The legislation on equal treatment for disability and chronic illness (WGBh/cz), the legislation on higher education and scientific research (WHW) and the legislation on financial support for students (WSF2000). The Dutch government's protection of students with disabilities stems from these legislations and in particular from the WGBh/cz. The WGBh/cz is an evolution from the original legislation on equal treatment (AWGB) from 1994 which featured a ban on discrimination on the basis of religion, ideology, political preference, race, gender, sexual preference and marital status but omitted health or disability. The WGBh/cz banned discrimination on the basis of chronic illness or handicap in 2003. The WGBh/cz was originally intended to be added to the AWGB yet it became a separate legislation that specified discrimination services, accommodation, and goods as illegal. To this day the WGBh/cz is the main vehicle for rights of students with disabilities to demand adaptations as well as the legal reason for institutions to act upon it.

Criteria and rules concerning higher education and scientific research are determined in the WHW. The WHW relates to disability as that it stipulates the terms and conditions that educational institutions in the Netherlands have to comply with. These terms and conditions concern, among others, items such as testing and the availability of study materials that have to be provided to students regardless of disability or handicap. Financial support in the Netherlands is dealt with in the WSF2000 and administered through a separate agency 'Dienst Uitvoering en Onderwijs' (DUO). Students with disabilities can apply for longer extra year of financial support, in addition to the maximum of four years, to accommodate delay in a given study due to health reason. Most universities in the Netherlands also have financial aid programs for special cases program that can be accessed if the need arises, yet the threshold in order to attain this type support can be high.

In addition to the legal context the ministry of education, culture and science created a seven point baseline to which institutions in higher education have to adhere in relation to students with disabilities (Commission Maatstaf, 2010). The baseline aims for students with disabilities should having the same opportunities and access to higher education. The seven points are: information services, physical access, student guidance, expertise (including staff knowledge), flexibility of learning routes, adaptation of testing methods and safeguarding quality as well as continuity. The common thread between these seven points is that the student should be informed about the availability of measures, have access, support and possible adaptations that are to be made within reason of the capabilities of the university and the limits of the program. As it stands no university in the Netherlands currently meets all of these criteria (Commission Maatstaf, 2010).

As a result of all of the above the center for studying with a disability states that: 'the Netherlands doesn't have the most accessible higher education system in the world, but most of the Dutch students find it quite manageable. The biggest problem: most facilities are not a matter of course, which means you have to ask for them. That said, most universities will try to facilitate the necessary modifications once you have asked for them' (Handicap & Studie, 2014, p.1). However, when such modifications are then granted on the basis of individual discretion the university and more specifically the support staff is in control of the means of access for the students. Whilst individualization allows for tailor made programs for students with disabilities it also allows for the introduction of a level of randomness to a situation which is constructed on equality in access, participation and opportunity. Such confrontations have been brought before the Netherlands Institute for Human Rights, which is an institution that aims to protect human rights through monitoring the implementation of legislation and guidelines as well as explaining and promoting human rights in the Netherlands. Furthermore the institution provides rulings on individual cases of discrimination (Netherlands Institute for Human Rights, 2015).

In several cases brought before the institute of Human Rights it becomes clear that undue burden and responsibility can be challenging issues: in the case of the Hogeschool Zuyd the institution was held responsible for insufficient action on behalf of teachers and support staff. The agreements for adaptations were not written down and it would be the responsibility of the student to discuss them with teachers and staff during exams. During the entire process the institution was aware of the disability (Netherlands Institute for Human Rights, 2014). A similar situation arose in a case in which a student was in constant contact with support staff but had not followed the new bureaucratic procedure to apply for aid and therefore requested aid was not granted. The institution ruled that it was the responsibility of the university and its staff to make sure that the procedure was known, that the student could check the process and that communication would be proactive towards students with disabilities. By not adhering to these principles the university policy was considered insufficient and therefore the burden could not be placed on the student (Netherlands Institute for Human Rights, 2009). At another Dutch university a situation emerged in which a student applied for a technological support system, which the university denied due to undue burden on the institution as well deeming it unnecessary based on the recommendation of the student psychologist. The institution ruled that it is imperative that the university better substantiate those claims since the examination was not extensive nor was it able to demonstrate why it would be an undue burden (Netherlands Institute for Human Rights, 2013).

These cases show that there is the possibility that clashing interests combined with individual or institutional discretion creates a situation which hinders participation and inclusion of students with disabilities. Different opinions on what is the institutional responsibility in communication as well as a lack of substantiating the burden of making adaptations lead to exclusion of student with disabilities. However, what are the defining characteristics of what is to be adapted? The theory chapter will expand on what is necessary answer the question on what should be equal and therefore facilitated by the institution.

2.5 THEORETICAL FRAMEWORK

To provide an adequate theoretical framework for answering the research questions it is of importance create an overview of the different theoretical components used to answer them. The theoretical framework is built upon two main strands: theory and context. As examined in this chapter, equality of opportunity and the social model of disability are the two strands of theory that are essential to this research which are complimented with the prior research on the inclusion of students with disabilities. Furthermore, the contexts relates to national and international legislation and guidelines which a partly formed by the theories of equality of opportunity and the social modal of disability.

2.5.1 THEORY

The theory of equality of opportunity provides a theoretical foundation for further analysis by providing reasoning and justification for the facilitation of students with disabilities by arguing that circumstances, such as disabilities, do not substantiate just cause for inequalities of opportunity to arise (Dworkin, 1981). In order to create an environment of equal opportunity it is important to note that the individual needs to be able to convert their resources into functionings (Sen, 1985). Since the bounded system of students with disabilities are likely have common group characteristics it is important to note that these characteristics are not choices of individuals and therefore society should aim to alleviate their impact on equal opportunity (Roemer, 1998). Nevertheless, Mason (2000) states individual circumstances also require attention, possibly even mandating alleviation of caused by choice if those choices were influenced by external forces. This research regards the statement by Phillips (2006) to be the culmination of the essence of equality of opportunity: 'equality in the things for which we are responsible and difference in those of which we are not responsible for' (p. 21). Furthermore, during the analysis one must to consider adaptive preference formation as the reduced expectations of students with disabilities could alter the interpretation of facilitations offered (Sen, 1985)

The social model of disability provides a theoretical and analytical paradigm for the role of the institution and society in the manifestation of impairments. This model argues that society creates the opportunity for oppression and exclusion if it is unable to address the barriers that cause impairments for people with disabilities (Shakespeare & Watson, 2001). Therefore, the social model should be seen as a paradigm that allows for analysis and understanding of the context and power of the individual and society in constructing a pro-active approach which enables people with disabilities fully participate in society without stigma or exclusion (Boxall, Carson & Docherty, 2004). Scullion (2000) also recognizes a role for educational institutions in combatting such stereotypes which hinder their potential of students with disabilities.

Prior literature showed that institutions for higher education are often inaccessible for students with disabilities and unwilling in their facilitation (Barness, 1991) and that the barriers experienced by students with disabilities can be categorized into structural and cultural aspects (Cnockaert et al. 2010). Structural problems were found in the organization of the support framework which also varied significantly between departments (Tinklin & Hall, 1999; Shevlin, Kenny & Hall, 2004). Furthermore, the inclusion of students with disabilities in the development of procedures and policies was lacking (Holloway, 2001). Consequently, students with disabilities encountered barriers in support procedures, access to information, physical barriers and an increased workload due to lacking staff actions (Holloway, 2001). The cultural barriers experienced by students with disabilities often related to a lack of awareness and empathy, creating the distinct possibility for stereotyping and stigmatization (Shevlin, Kenny & Hall, 2004). An example of this was the perception of staff whom perceived requests for help by students with disabilities as special pleading (Borland & James, 1999). Consequently, the cultural inclusion often lagged behind the structural inclusion: whilst universities often have a form of structural inclusion in policy or procedures, the cultural inclusion related to acceptance, awareness and empathy was lacking. These aspects combined create an environment in which structural and cultural aspects often have exclusionary elements for students with disabilities (Cnockaert et al. 2010).

2.5.2 CONTEXT

Aspects of the theories of equality of opportunity and the social model of disability can also be found in the CRPD, the EU Disability Strategy 2010-2020 and the national guidelines. The CRPD mentions equality of opportunity as one of its founding principles and the facilitating nature of these documents closely aligns with the spirit of the social model of disability (UN general assembly, 2007). The CRPD focus regarding education providing equality of opportunity and including people with disabilities in society and education on all levels (UN general assembly, 2007, 14). To facilitate such assess and inclusion the CRPD states that hiring and training practices need to be more focused on people with disabilities as well as the need for external action to raise awareness.

With the European Union being signatory to the CRPD the goals and measures in the CRPD are fully incorporated in the European Disability Strategy 2010-2020, underscoring the necessity for accessible lifelong education to prevent isolation (European Union, 2010). Furthermore, the bologna process supports similar goals as well, and is more than just a process to reconcile educational standards (Nyborg, 2004). Stemming from recommendation 98 (3) which states that: 'People with disabilities should be given equal opportunities to participate in study, research, and employment in higher education, and physical and systemic barriers to their participation should progressively be removed' (Council of Europe, 1998, p. 22). These policy goals are included in the European Disability Strategy 2010-2020 as well, becoming the main vessel for the European approach to disability.

In 2015 the Netherlands aims to fully ratify the CRPD, bringing about several improvements in rights for people with disabilities. As it stands the inclusion and accessibility of Dutch higher education is specifically mentioned as a key area of attention for ratification of the CRPD in the Netherlands (de Jong, den Exter & Hulst, 2013). Currently the Netherlands aims to facilitate the principles of inclusion through legal means in the form of anti-discrimination legislation (WGBh/cz), financial support for students in general (WSF2000) and the right to education in the constitution. Apart from the legal structures the Commission Maatstaf created a seven point concerning the information services, physical access, student guidance, expertise, flexibility of learning routes, adaptation of testing methods and quality safeguards. Related to these notions is the Netherlands institute of human rights, whom monitor the implementation of the CRPD as well as handing out advisory rulings concerning discrimination. Important highlights of such rulings that are relevant to this research stated that the Institution of higher education is responsible for insufficient action on behalf of teachers and support staff in the case of a known disability. Furthermore, all relevant information and procedures are to be organized in a pro-active manner towards the student and that the institution of higher education is obliged to carefully substantiate undue burden in the specific case at hand.

The interconnections between the theory and context are visually represented in figure 1. The theory as a whole provides a framework for analyzing the ability of the University of Twente to offer students with disabilities the opportunity to fully access and participate in their bachelor program on the institutional level. In addition, the theories of equality of opportunity and the social model of disability also have an influence on the context. These theories were used as a foundation for the development of the international and national legislation and guidelines. Within the context there are several interconnections within legislation and guidelines. The context as a whole relates to the ability of the University of Twente to create to equal opportunity for students with disabilities to access and participate in their education program on a contextual level. Consequently, the final connection logically follows: the experiences of students with disabilities are influenced by the University of Twente and its ability to provide and inclusive environment as well as equal opportunity.

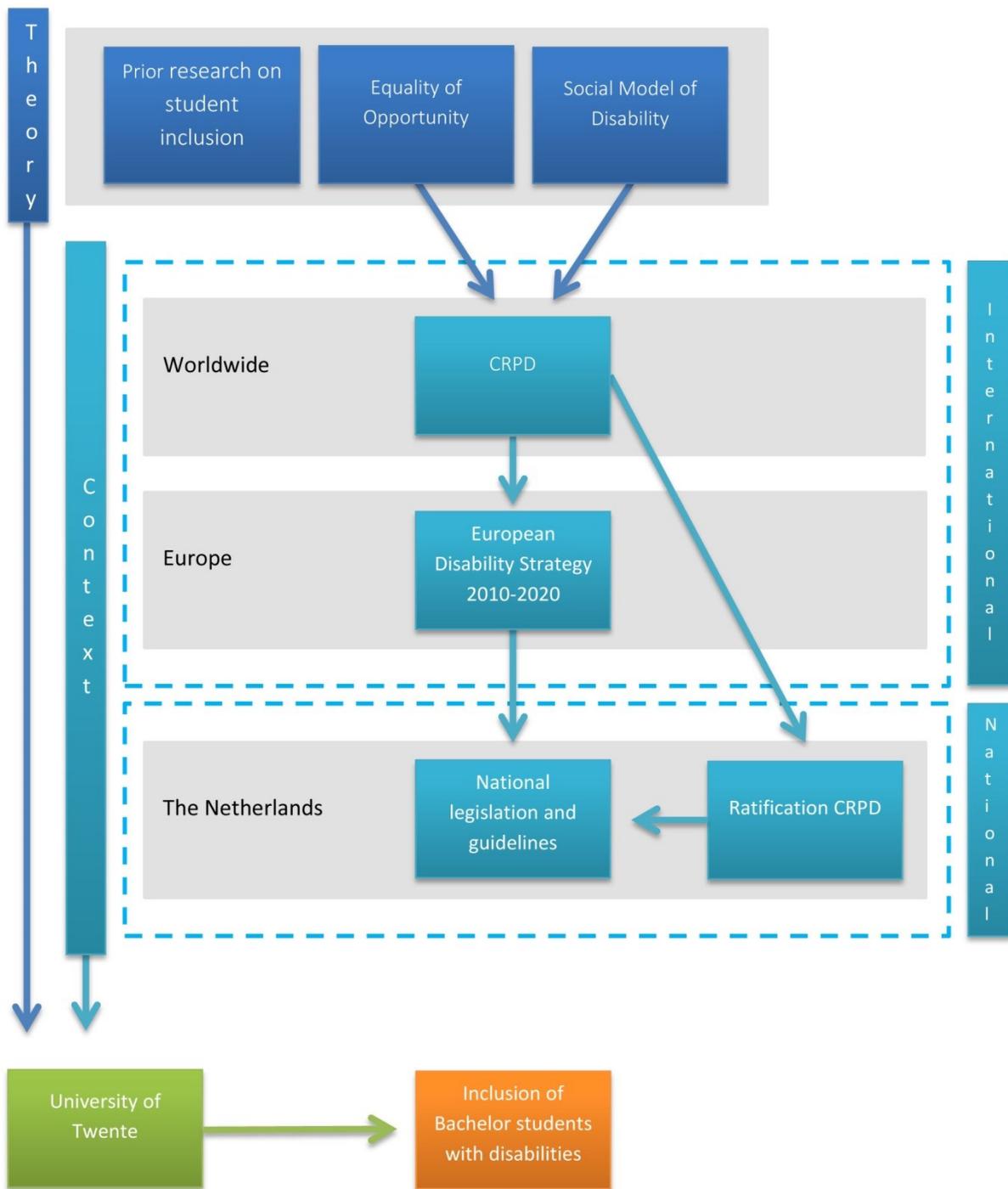


Figure 1: Theoretical framework

3. METHODS

3.1 RESEARCH DESIGN

The aim of this study was to understand and learn more about the experiences of students with disabilities at the University of Twente, with the purpose of investigating if the University of Twente is able to offer bachelor students with disabilities the opportunity to fully access and participate in their educational program. Consequently, a small-scale qualitative case study was used to describe and explain the experiences of students with disabilities on the University of Twente (Yin, 2003). The case study design was selected based on two main characteristics, namely: the exploration of a bounded system and the qualitative approach (Creswell, 2012). First, the exploration of the bounded system allowed for the investigation of a set group in one context, namely students with a disability at the University of Twente. Second, the qualitative approach of the case study has the distinct purpose to draw in depth conclusions (Gerring, 2004).

Research question	Is the University of Twente able to offer bachelor students with disabilities the opportunity to fully access and participate in higher education?
Research purpose	Descriptive and explanatory
Units of analysis	University of Twente
Respondents	<ul style="list-style-type: none">• Bachelor students of the University of Twente who have a disability• Supporting staff of the University of Twente (key informants).
Data collection method	Semi-structured interviews
Sampling method	Theoretical sampling
Data analysis	Open coding

Table 1: Research design

The design of a case study can use descriptive, exploratory and explanatory analyses (Yin, 2003). In this study two types of analyses were performed to answer the main question. The descriptive nature of the case study aimed to discover in-depth insights concerning the experiences of studying with a disability in relation to the current educational model of the University of Twente; TEM. This led to in an institutional analysis which the practice of the institution was analyzed through description and reflection on the experiences of students with disabilities and the key informants within that setting. This type of analysis investigated how institutions behave and function and what the effects of that behavior and the structure are on individuals and groups. In doing so, the institutional analysis combined the experiences of students and key informants to gain qualitative insights, from which to draw conclusions concerning the institution and its ability able to offer students with disabilities a level playing field.

In addition to an in depth analysis of the experiences, the explanatory nature of the case study provided the opportunity to relate the experiences of students to the national and international context. This analysis will focus more on placing the findings and experiences of the institutional analysis into a broader context: providing the ability to understand the institutional situation through comparison, explanation and critique. The comparative elements of this analysis revolve around the CRPD, the European Disability Strategy 2010-2020 and national legislation and guidelines combined with the key points of the theory. These elements place the insights gained in a broader view, creating the opportunity to analyze the reasoning causing the experiences as well as comparing them to national and international guidelines.

Both of these aspects of the case study were combined to answer the main research question. However, several threats can be identified within this type of research. First, the qualitative nature of the research limits the generalizability of the outcomes due to its small sample size. This means that the external validity of the study is limited; therefore there should be a high degree of caution when extrapolating results beyond the specificity of the bounded system (Bryman & Bell, 2011).

3.2 METHOD OF DATA COLLECTION

Semi-structured interviews were conducted used to gain insight in the ability of the University of Twente to offer bachelor students with disabilities the opportunity to fully access and participate in their educational programs. Semi-structured interviews are a method for qualitative data gathering in which the focus lays on exploring the views and experiences of the respondents on the area of interest (Bryman & Bell, 2011). The main objective of this method is to gain understanding of the respondents experiences on the area of interest instead of checking off pre-determined lists of questions. The semi-structured interview method was also used in similar studies form Holloway (2001) and Shevlin, Kenny and McNeela (2004).

The strength of this method is the high validity, as the respondents have the possibility to talk about their experiences in detail and depth as well as provide additional understanding (Cohen, 2006). Moreover, semi-structured interviews offer a high level of flexibility because the interview guide, containing the relevant topics, is used to formulate open ended questions which can be adapted based on the input of the respondent during the interview (Bryman & Bell, 2011).

Ergo, semi-structured interviews tend to start with a broad question where after the question go more in depth. This facilitated for the clarification of complex questions and situations. Furthermore, with this method the researcher is not restricted with an interview model which only contains pre-set questions. This method of questioning will allow the interviewer to make sure all possible angles of the subject are covered without steering the respondent in a certain direction. At the same time this means that the interviewer has to be mindful of steering the respondent in a certain direction by asking closed questions or giving clues (Seidman, 2013). Another challenging aspect is the reliability, since a semi-structured interview is difficult to exactly replicate since the questions are not standardized. Furthermore, the personal nature of the data makes it difficult to generalize the results outside the bounds of the research. Nevertheless, when executed properly the flexible nature of the semi-structured interview allow for gathering in depth information regarding the subject and the structure facilitates the respondents expanding upon their answers in a meaningful way (Bryman & Bell, 2011).

3.2.1 STRUCTURING THE PROCESS: THE INTERVIEW GUIDE

In order to structure the process to gain insights in the ability of the University of Twente to offer bachelor students with disabilities the opportunity to fully access and participate in their educational program an interview guide was created. The interview guide was based on the key theoretical points as well as the insights gathered from previous studies on the inclusion of students with disabilities in higher education. This allowed for constructing an interview guide which covered all relevant topics for student inclusion as well as providing the possibility to incorporate the different guidelines. In other words, the interview guide is aligned with the model created by Tinklin and Hall (1999) and used by Holloway (2001) and Shevlin, Kenny and McNeela (2004) whilst it also includes key elements of UN, EU guidelines (United Nations, 2014; European Union, 2010) as well as the seven points of Commission Maatstaf (2010). The model has four key categories, choice of college, assistive provisions and practices, assistive technology and college experience. Furthermore, each category has one or more sub categories which are described below and the full interview guide with examples of questions used during the interviews can be found in Appendix I.

The first was category of choice of college and course. This category was adopted based on the research of Tinklin and Hall (1999), Holloway (2001) and Shevlin, Kenny and McNeela (2004). This category was used to investigate the rationale of students behind their choices to enroll in the University of Twente as well as their study specifically. The aim of this question was to explore what students with a disability factor in to choosing the University of Twente as their institution of higher education of choice. The scope includes knowledge of facilities, preference for a certain program, attendance to the special introduction for students with disabilities and their overall experiences in making the choice for the University of Twente.

The second category assistive provisions and practices contains three subcategories based on UN, EU and Dutch legislation and guidelines. These guidelines aim to safeguard access and participation through adaptation and removal of barriers to inclusion (United Nations, 2014; European Union, 2010; Commission Maatstaf, 2010). The aim of this category was to investigate the adaptations for students with disabilities as well as gather insights regarding their experiences concerning the level access and participation they enjoyed in their study.

The third category of assistive technology was constructed based on the study of Holloway (2001) who found the model lacked clarity and direction without the addition the category of assistive technology as well as the addition of several subcategories, namely: financial costs, university provisions, library systems, technological support system. The aim of this category was to gain insight in the ability, means and knowledge of students with disabilities concerning supportive technologies.

The fourth and last category of college experience was used to investigate the experience of students with a disability in regard to the support systems offered by the university and to investigate to what extent students with a disability feel supported by their fellow students, teachers and the supporting staff of the University. This provided insight in the manifestation of impairment in the life of the students and how the environment reacts to the student with a disability (Tinklin & Hall, 1999; Holloway, 2001; Shevlin, Kenny & McNeela, 2004). Moreover, the subcategory for awareness was added based on its merit in the Dutch and CRPD guidelines (European Union, 2010; Commission Maatstaf, 2010).

3.3 SAMPLING METHOD AND RESPONDENTS

The study was conducted at the University of Twente in the Netherlands. The relevant population was considered to be students with disabilities, who are known within the university support system and are in the bachelor phase of their studies. Master students with disabilities were not taken into account since the curriculum of the master programs is not based on TEM and their experiences may therefore not be comparable. The group of students with disabilities was relatively small: 90. The overall bachelor population is equal to 5605 students (University of Twente, 2014a). Within the group of disabled students in TEM, there is a broad range of different impairments; it is therefore likely that there are varied experiences within such a broad group. Furthermore, there is a significant overrepresentation of a limited number of impairments representing 71.4% of the group, namely: ADHD, autism and dyslexia. Therefore, sampling will be based on theoretical representation in order to collect experiences from as much of the range as possible rather than based on randomization and drawn from a skewed population (Baker & Edwards, 2012). Theoretical sampling will enable to capture experiences from the full range of students with disabilities at the University of Twente and under ideal circumstances fill the groups to the point of saturation (Bryman & Bell, 2011).

In order to engage in theoretical sampling there is a need to distinguish the various subgroups of the concept of disability. The university specifies eight groups of disabilities: movement impediments, movement of arm and hand impediments, stamina impediments, sight impediments, hearing impediments, psychic impediments, reading impediments and speech impediments. However, the difficulty with these groups is that they overlap and are not complete in the range of disabilities covered. The groups mentioned do closely align with a more complete framework used by Cnockaert et al. (2010) in which 8 groups of disabilities are described.

The eight groups are: (1) impairment of motor skills; (2) impairment of hearing; (3) impairment of vision; (4) learning disorder (e.g. dyslexia, dyscalculia); (5) chronic illness; (6) psychiatric disorder; (7) other; (8) multiple disorder.

Contact information of students with a disability was gathered in consultation with the student deans and the diversity coordinator; the communication went through the student support in order to guarantee the privacy data of the students in question. All students who were registered as having a disability were approached by email from student support, inviting them to participate in this study and elaborate on their experiences studying at the University of Twente. Based on the response and theoretical sampling a sample of seven students was drawn from including students from group 4, 5, 6, 7 and 8. Two students of the fourth group who applied after being contacted by student support were left out since the point of saturation of this group was already fulfilled. Moreover, considering the small group of students with disabilities the specific descriptions of the disability of the students will not be shared as students could be identified with this information.

In addition to the interviews with the students two key informants of student support were interviewed which allowed for greater insight into the group as well as representation of student experiences by proxy. The two key informants from student support often interacted professionally with students with disabilities. Furthermore, they interacted with students with disabilities in different stages of their university career: one mostly saw students at the start, the other in the middle and later during their bachelor. In order to reconcile the data from the students and student support staff the same interview guide was used to formulate the questions during the interview. Moreover, all interviews were recorded and transcribed in order to analyze them.

3.4 DATA ANALYSIS

After concluding the interviews and the transcription the gathered data was analyzed using open coding. Open coding refers to process of examining the data by close readings to distill concepts and categories from the data. This method is specifically chosen as coding method since it uses the insights and input of the respondents to construct a descriptive framework, called a codebook. The codebook forms the foundation for the analysis of the data. In doing so it enables for greater insight opposed to methods that have a set framework beforehand, since the researcher is not limited by the scope of previous literature (Bryman & Bell, 2011).

Furthermore, by using open coding to interact with the data gained from the interviews an analysis of theory and practice was constructed: facilitating analysis of the interconnections theory and its application in an educational setting. Therefore, this method allows the researcher to distil relevant and practical sets of output which in the case of this research allowed for interpretation and analysis in conjunction with (inter)national guidelines.

The strengths of this method can be found in the distillation of the concept from the raw data in order to construct the codebook. This manner of working ensures the validity of the analysis. In order to engage in open coding, the researcher searches for distinct concepts and categories within the data. These concepts and categories then form the basis for the code book. Whereafter, the researcher investigates the data more in depth in order to break down the concept and categories into first level concepts and categories second-level concepts and categories. This manner of working allows the researcher to get familiar with the data and narrows the possibility of missed concepts and categories (Bryman & Bell, 2011). In order to safeguard against coder bias the interviews were coded by two individual coders (Turner, 2010). The final codebook containing the concepts and categories and their corresponding second level concepts as well as their definitions can be found in Appendix II.

The outcome of the coding process resulted in an overview of areas where students experience challenges and what these challenges are. The overview of coded experiences was contrasted by the key points of the theory chapter in order to find interpretation, justification and insight for the challenges experienced. Moreover, the experiences of students with disabilities at the University of Twente they were compared with the national guidelines and rulings as well as the CRPD and the European Disability Strategy 2010-2020. With this comparison the aim was to get an overview of the ability of the university to comply with the substance as well as the intent of these documents. On the basis of the complete analysis it was possible to answer to the main research question: Is the University of Twente able to offer bachelor students with disabilities the opportunity to fully access and participate in higher education?

3.5 CONCLUSION

The procedure of the data gathering consisted of four phases and is visualized in the figure 2. The process of data gathering started with phase one in which concurrently the interview guide was developed and the respondents were invited and selected on the basis of theoretical sampling. After the completion of the interview guide and the selection process the procedure moved along a sequential path. The interviews were conducted in phase two whereafter the interviews were transcribed in phase three. In the fourth and final phase the interviews were coded.

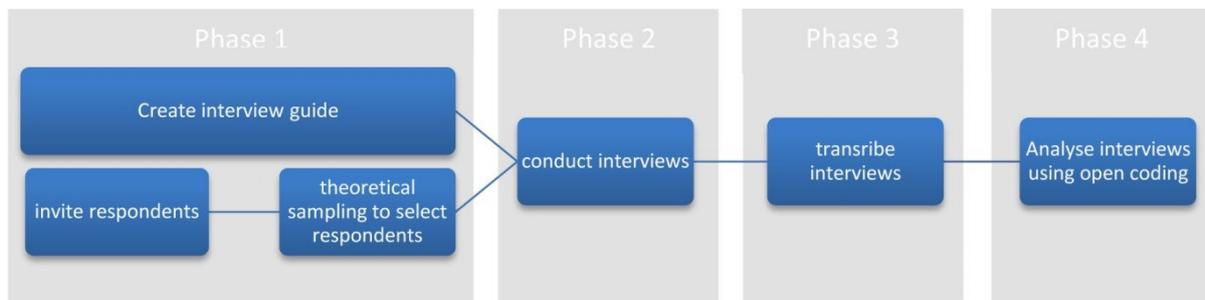


Figure 2: Procedure

4. INSTITUTIONAL ANALYSIS

Institutions of higher education are often challenged by the prospect of providing an inclusive institutional environment for students with disabilities to maximize their potential. Therefore, it is of the essence to analyze the workings and behavior of the institution to gain insight into such processes. The purpose of the institutional analysis is to analyze the behavior, structure and mechanisms of the university through the lens of student and key informant experiences. This institutional analysis aimed to discern how constructed institutions behave and function: examining their workings and effects on individuals and groups in practice. The combination of the experiences and examples with the analysis granted qualitative insights whether the institution is able to offer students with disabilities a level playing field, specifically aiming to answer the second and third sub questions:

- What facilities and guidelines are there currently in place for students with disabilities at the University of Twente?
- How do students with disabilities perceive the supportive structures and processes of the University of Twente?

In reading the analysis it is important to be mindful of the key points of the theories as well as the new the educational model of the university, TEM, in order to fully grasp the answers given by the interviewees. TEM is modeled as project based education program based on key several principles: modular education, student responsibility, cooperation and a quick introduction on the subject. In TEM courses are combined into a module for each quarter and modules have to be completed as a whole. It is, officially, not possible to divide the modules into separate courses and/or complete them separately. Each course within the module has several separate examination moments which take place subsequently during the semester. TEM policy explicitly states that students should be actively studying, that studying is a full time occupation and as such can be completed in three years. Furthermore, tutors monitor the progression of students throughout TEM and guide the students who encounter problems during their study (University of Twente, 2013).

In the specific case of students with disabilities the University of Twente states that there are no population numbers available but that they expect the situation to be the same as the national average (Steens & Oude Alink, 2014). However, they do state that there are likely to be more students with a form of autism. Furthermore, it is stated that because of the possible diversity of students with disabilities it is not possible to develop standardized policy and that all adaptations are to be developed individually for each student. Hence, the aim should be to allow the student to complete as much elements of the module as possible whilst keeping him or her as close as possible to the normal track. Delays to complete the first 45 ECS (the binding study advice given after the first year) are allowed , however such a delay is not allowed to be longer than one year according to the pass or fail criteria of TEM in 2014 (University of Twente, 2014b). Since there is no specific mention on prevention or mitigation of possible barriers for students with disabilities the exclusionary policy items could have the effect on creating the circumstances for inability to convert resources into functionings.

These policy aspects are important since the inability of students to convert their resources into functionings could lead to an unjustified, unequal outcome. Furthermore, in such an institutional environment adaptive preference formation is more likely to occur: students in a certain institutional and social setting who are told that only a certain level of support is available are more likely to eventually accept their conditions rather than proclaim their original preference or need indefinitely.

4.1. CHOICE OF COLLEGE

Making a deliberative choice of college is perhaps even more important for students with disabilities than it is for regular students. Students can have many reasons for enrolling in a specific university. The University of Twente gives special attention to students with disabilities pre-enrolment by offering prospective students with disabilities the possibility to visit the open day of (un)limited studying. This open day is meant to inform students and their parents about the possibilities and the facilities the university offers as well as a brief introduction to the supportive staff they will be dealing with. The students who visited the open day had a largely positive experience.

'During the open day I met with the coordinator diversity, to which I gave the declaration of my psychiatrist so she could handle the necessary adjustments right at the start of the study program. All in all it was pretty good. I met my study advisor that day as well. But I did feel that they made it look nicer than it is in reality.' (S, 6).

Nevertheless, four out of the seven students stated that they did not visit the open day for students with disabilities. This finding is also supported by the key informants who note that this day is mostly visited by students with a form of autism and students with a psychic disorder. Student who did not take into account the facilities available or were not informed about them often did not consider their disability in their choice of college. Furthermore, if the disability of the student developed later during their study it would be impossible to take it into account before enrolling. For these students it follows that they did not visit the open day and were therefore less informed, at the start of their study, of the possibilities as well as the responsibilities the university expects of new students. Furthermore, students shared that they involved other factors in their decisions such as interest in the topic or the atmosphere at the university. However, two students explained that they felt that their conditions had a significant impact on their lives and therefore more carefully weighed the options on which university to attend. It is also noted by a key informant that some students with for instance physical limitations, chronic illness or other disabilities often contact the university beforehand to discuss the facilitations of the university, one of the key informant noted that this is most prevalent with the more severe disabilities.

'Some of my roommates were already studying at the university back when I was still enrolled at Saxion. Back then I already considered going to University but felt like it would be too much for me. After I visited the University and looked into it, it became clear that a lot was available to me to make studying at the university possible. Also the stories that I heard from others made me think that this would be an option available to me.' (S, 4).

'Before I enrolled I had already looked in to the possibility of studying with dyslexia and to what extent that would even be possible, since it is a lot more theoretical. For my study there are only four universities and Twente is close to home (a combination of factors).' (S, 3).

Summarizing, it is noted that not all students with disabilities visit the open day for (un)limited studying and that not all students with disabilities were well informed about the facilities. These notions were supported by the information the key informants provided. In regard to visiting the open day, one of the key informants notes that students, and/or their parents, with a form of autism or a psychic disorder are often hesitant on the influences of a new environment and how it would impact the functioning of the student. Such hesitations can be addressed during the open day by discussing options and meeting the support staff and this is considered to part of the reasons why the open day is predominantly visited by these students.

In regard to the lack of prior knowledge of the facilities the other key informant notes that the students who visit the open day often receive a lot of information at once. However, students whose disabilities developed during their studies or who originally thought that they would not be impeded by their disability do not have access to that same level of the integral provision of such information. Therefore, those students are reliant upon individual support staff to offer that same combined, bundled package of information that is available during the open day. Additionally, it was mentioned by the key informants that some students do not indicate that they have a disability because they do not want to be different from their fellow students. Furthermore, certain students are more likely to reach out in earlier phases. Especially, students who previously studied somewhere else and students whose disability have a great impact on their lives. For such groups it seems logical that they are very aware of their environment and the necessary support measures they need to successfully complete their studies to their best potential.

4.2 ASSISTIVE PROVISIONS AND PRACTICE

Assistive provisions should be in place to support the ability of students with disabilities to access and participate in their study on a level playing field with fellow students. This can require adaptations in exams, rosters or other parts of university life. Therefore, the experiences of the interviewed students regarding their ability to participate as well as and access all forms of their study were key in understanding the reality of studying with a disability. Furthermore, it is important to note that access and participation are directly related to the possibility of adaptations and university provisions in place.

4.2.1 ACCESS

Access focuses on the experiences of the students in regard to the level of and the ability to enter, engage or otherwise access any matters related to their study and courses. Students experienced difficulty in fully entering their studies to do the scheduling and the time consuming structure of TEM. The time deficit was a shared and often mentioned challenge of the respondents. There were issues with combining classes and medical treatment.

'The main hurdle is the overly full roster, which creates a lot of stress. At the start of the module there were completely filled three weeks from 8.45 until around 17.30. This leaves me very little time for anything else. (...) There was an example of this when I was very worried that I would not be able to go to my lectures and continue my medical treatment of my physiotherapist.' (S,1).

The impossibility of focussing on the entire program created a barrier for the students to have full access to the curriculum. Which is a problem since TEM in theory only awards credits upon completion of the full module.

'TEM is structured in such a way that you only get ECs if you get complete the entire module, otherwise you get nothing. That is just very illogical to say the least.' (S, 2).

This impossibility was also apparent in the example of having to forego responsibilities for other courses in favour of a specific course. As well as in the challenge of not being able to study on a singular course in the speed or manner as fellow students and as is expected by the schedule.

'At certain times your whole week is dedicated to one or two very specific things and that makes it impossible for me to even work on other classes.' (S, 7).

Aggravating the issue of the overly full roster was the lack of information concerning the organization. The lack of information made it difficult to plan for students with disabilities who already experience added burden.

Furthermore, the TOM structure negated the ability of one student to do anything besides focussing on his health or study which meant that other things such as a social life were pushed into the background.

'Because I have to focus completely on my study all my remaining energy goes towards my health and therefore all other things are drowned out. (...) (In the TEM structure) I do what I can to keep up and get ECS however I do notice that in the few courses I am able to access I can no longer achieve the same marks as I did before. Which makes that I am quite often not content with the things I have achieved since I know I can do better.' (S, 2).

Even the students that expressed the ability to access certain parts of the curriculum specifically mentioned that they had difficulties in accessing other parts. Specifically, in regard to self-study. The pressure from the schedule, lectures and deadlines make it difficult to plan and complete self-study tasks. This pressure is enhanced by the difficulties several students face with starting to learn, write or maintaining focus:

'I am mostly working from deadline to deadline without feeling like I have enough time to complete the previous deadline. (...) I feel that I have too little time for studying and I really try plan for it and keep myself to the planning but maybe I'm not efficient enough but I just can't seem to make it. (...) I had an exam last week for which I studied the entire holiday, but that took up everything and I can only now start to focus on my exam for next week.' (S, 3).

For the students with dyslexia this problem is evident since they have difficulties in comprehending the learning materials. Such difficulties often related to difference between theoretical work that required more of their reading skills as opposed to mathematical or project based work.

'Even though I feel like I can keep up I notice that it takes me a lot more work than others. (...) 'Projects and mathematical work I can understand, but the moment I have to read or make an excerpt it becomes really difficult for me. (...) Therefore I try to focus on engineering projects or mathematics. (...) Whenever a course is theoretical I start falling behind in that course and other and due to the full roster I am not able to close that gap.' (S, 5).

The way the curriculum is organized can also be a barrier to access for students with disabilities. There was mention of a preference for individual assignments as they can be handled in the student his or her own schedule as opposed to the nature of group work. In the TEM structure projects and group based work are very prevalent and therefore students were often confronted with it. The gap between the preference for the ability to handle your own schedule and deal with the challenges can therefore be at odds with the general structure of the educational model.

'Individual assignments I can complete myself, in my own way and in at my own pace. (...) However hard I study for an exam I only manage to get a very mediocre or even bad grade where I used to be able to get a pass even though I barely had time to read the materials, I just can't do that anymore because of my disability.' (S, 2).

Summarizing, the policy behind the TEM structure, which considers that studying is a full time occupation, was in many cases challenging for students with disabilities. Stated that studying is a full time occupation also means that the study load is calibrated to the nominal student who should be able to participate for a full working week in his or her study. However, the assumption of studying as a full time occupation implicitly excludes other options. The implicit exclusion of non-normality provides challenges to access for students with disabilities who cannot fully engage into the required schedule.

4.2.2 ADAPTATION

As mentioned before adaptation concerns the student experiences of students in relation to the changes made to facilitate their studies, this can require adaptations in exams, rosters or other parts of university life. Within the domain of adaptations there seemed to be a divide in the experiences: on the one hand there were students for which adaptations were made and on the other students for which adaptations were not (adequately) made. When adaptations were in place students were mostly positive about the adaptations made and their ability to be successful in their studies. Such students revealed the adaptations made for them in regard to their study load helped. Students mentioned that adaptations were made in conjunction with the university and related to limiting the study load to only one or two courses instead of participating in the whole module. These individualized study programs allowed students to have access to and participate in what would otherwise be a very difficult proposition.

'I made a schedule with the study advisor that I will only participate in half of the module in which I focus on the courses where there aren't theoretical exams. He told me that all the points I am able to gather right now will be awarded when I complete the other half of the module next year.' (S, 2).

Before I started I was quite scared about how everything would turn out because everyone said that TEM was very strict in its application. However, luckily a lot of adaptations can be made and were made for me. I only took single courses, I could take the remaining courses in successive periods which means I did not have to wait a year each time. So yeah, that made me feel a lot better. Currently I am still in contact with my study advisor and can participate in courses from home so that I am really prepared whenever I can go back.' (S, 4).

Other adaptations that were indicated as beneficial focussed specifically on certain parts of the study program such as the examinations. This mostly concerned additional time and/or making their exam in a separate room. These adaptations were in part regarded as successful because of their standardized nature. Moreover, this meant that students could rely on the adaptation they needed as it would be in place without requiring additional effort on the part of the student in organizing the adaptation. However, those successful experiences were only positive if the adaptations were in place and working properly. If the adaptations were not made or not efficiently implemented students' experiences were worse to at best varied. Certain students were told that adaptations were not possible, did not have the idea that anything could be done or had to apply for the adaptation in question every time they needed it. In these answers adaptive preference formation comes into play as well, when students are told there are no options available to them several times they will grow accustomed to the institutional environment and expect nothing more.

'In some cases I did get an extension during the practical exam or was allowed to hand my results in later. Currently no standard adaptations have been made yet. My study advisor told me that there aren't really adaptations but that there some options but that it is preferred to try it without and I think so too. This means that they are somewhat looking at what can be done about extra time and my panic attacks and the agreement is that if it goes wrong for another period that there are things that could be done. The study advisor has not yet discussed what those things are with me. So I just have to wait and see and hopefully it will improve.' (S, 1).

Adaptations to the regular program are often a requirement for the successful completion of the study for a student with a disability; such adaptations are often available within the university support framework. However, the discretionary nature of the adaptations creates a disparity between the interviewed students. Most of the experiences with the standardized adaptations such as the ones for dyslexia were positive. However, here the discretion of university staff is less in play than with the more unique cases.

This leads to a situation in which there is a distinct possibility that the more unique or difficult cases, which are dependent on the positive outcome of that discretionary power, certain students with disabilities are facilitated whilst others in equally pressing positions are not. Furthermore, one of the key informants stated that students do not feel as if they have such rights, often it is already very difficult for students to ask for help and they are not experts on all the possible support measures and adaptations. Within the current institutional setting this can lead to not being able to find and get the required adaptation. The key informant also mentioned that there are significant differences in gaining access to adaptations between different study programs. The choice of the university to not create a (minimum) policy standard of rules and guidelines concerning the, legally obligated, facilitation of students with disabilities enhances the possibility cases of procedural inequality and with that allowing the significant differences in the level of between different study programs.

4.2.3 PARTICIPATION

Being able to (fully) participate in your study is very important to the eventual success as well as your experiences during the study. First and foremost students indicated that friction exists between the wish to participate just like everyone else and the limitations experienced by students with disabilities. Furthermore, the key informants ascertain that the difficulties TEM provides are mostly due to a very full program which causes a lot of stress of students with disabilities, to a lesser extent the many exams and to a stronger extent the many projects. They also state that whenever problems do arise and students need to have an individualized roster it is immediately very visible due to the nature of TEM, since all students are required follow all courses.

'You want to be able to participate like the rest of your class: get your degree in a decent tempo, complete your assignments and exams whilst in reality you might try to latch on to a pace that is reasonable for normal people but not for you.' (...) 'And that makes it difficult with the constant flow of deadlines and exams.' (S, 3).

The level to which students can participate in their study seem to depend on numerous factors. These factors were found in the structure of TEM, personal expectations and or limitations as well as the interactions with fellow students. Considering the many specific responses in this category distinctions between the different elements within the structure of TEM were made. These distinctions are: lectures, examinations and projects. The distinctions were made because the experiences in lectures can differ from those in examinations or projects. Within the general view of being able to participate most students encounter difficulties. Most of the students express negative experiences with the workload and deadlines when trying to participate in the modules.

'(Whenever the workload and pressure grow), I am no longer able to participate in the way that I want (...) but I am told that this will become better in the next months.' (S, 1).

'I've tried participating but currently (with my health and TOM) I just can't, even with the support I've been offered (...) I haven't been able to complete a module but I can imagine it would be very difficult for people with physical issues. The workload and schedule seem impossible. I don't think I will ever be able to participate in the 'classic' TOM model. For me it is essential to be able to follow courses individually.' (S, 4).

Nevertheless, there was one student who was pleased with the structure and explained that it was according to her opinion very well suited to people with ADHD yet also stated that can be unsuitable for others.

'For me TOM is great, everything is spread out and for me that is really good. The pressure is spread out and the workload can be high but that does not really bother me because everybody is affected by that and I feel that it does not unequally impact me. I just like it because you have all these deadlines and everything is already planned for you, which means you don't have to think about it. I need that level of organization, but I think that the workload can be too high for others.' (S, 6).

Students often experienced difficulties in fully participating in the TEM structure. These difficulties often related to the structure of TEM where the schedule, roster, deadlines and group work kept students with disabilities from fully engaging with their education.

4.2.3.1 LECTURES

Several students mentioned their experiences in participating in the lectures. These students felt that that the way lectures combined with the overall schedule. This often manifested in the inability to keep up with the reading schedule in combination with the overly full schedule of the TEM structure. Nevertheless, negative experiences with lectures were less prominent amongst the students who were interviewed.

4.2.3.2 PROJECTS

Projects are a significant part of the TEM structure. However, group work and project work often place additional strain on students with disabilities. The strenuous nature of group work for students with disabilities was also mentioned by the key informants. Common student experiences were: a lack of understanding from fellow students,

'I feel that some things are going well in my participation but mostly group work and projects are issues for me. Since I don't feel that people support or understand my limitations.' (S, 3).

difficulties in the form of work and communication,

'All forms of group work are hard for me. For me it feels that people are constantly pushing me and I tend to panic whenever group work deadlines are not met (whether by me or someone else). (...) During group work I find it hard to communicate and tend to shut myself off, just go and work on my own part when we should be communicating. I feel that it is hard, it really depends on the group whether I am able to maintain a decent level of contact.' (S, 7).

and feeling inadequate since the student could not contribute on the level they wanted due to their disability and the high workload.

'Group work can be difficult since I cannot promise people I will always be there. I can't really seem to explain that there are times when I will not be able to attribute efficiently. It is really hard to explain to a group when I am in bad or good shape. And the group feels like they have been given extra work because I can't fully contribute.' (S, 2).

Students mentioned varied experiences related to project and group work, ranging from reasonable to decidedly more negative. Students expressed difficulties in group work and indicated that projects and group work were often very difficult for them to participate in.

4.2.3.3 EXAMINATION

Different forms of examination can have an impact of the ability for a student with a disability to participate to their highest potential. In the interviews students who had standardized adaptations, such as extra time during examinations, mentioned the most positive experiences. However, if the impairment could not be alleviated by a standardized or individual adaptation negative experiences remained.

Several students mentioned experiencing grave challenges in trying to participate in examinations. One student explained that the form of examination caused her panic attacks to trigger and that the situation remained after several meetings with her study advisor.

'Practical exams are really difficult for me. They are really the things that I do not look forward to, most of the time they did not go well for me (had a panic attack) and this was always due to time pressure. Whenever something happens late in the exam I lose control and start to panic: I cry a lot and lock myself into a room or closet. This has happened fairly often and the study advisor said that if things start to get bad they will look into a solution such as extra time. Every time I had extra time given to me beforehand it went better.' (S, 1).

Another student expressed the challenge posed by forms of examinations which were not suited to his form of disability since he could not engage in them with his maximum potential. Therefore, being held back due to the form of examination and not the content of the course or his or her own intelligence.

'Presenting and exams are really hard for me since I find speaking and memorizing hard (because of my condition) I do what I can to keep up and get ECS however I do notice that in the few courses I am able to access I can no longer achieve the same marks as I did before. Which makes that I am quite often not content with the things I have achieved since I know I can do better. (...) This makes me focus more on project and assignments: things I can plan and do in my own pace.' (S, 2).

For the interviewed students the experiences varied greatly: whereas students with standardised adaptations for their impairments during examinations fared well, students without such standardised solutions had negative experiences.

4.2.4 UNIVERSITY PROVISIONS

Many students seem to be unaware of what financial, technical or otherwise supportive university provisions are in place, could be available to them as well as the extent of the provisions. Students expressed that the organization of university provisions was lacking and that students needed to organize the provisions themselves, as well as check if they were in place.

'I have the impression that the university painted a prettier picture during the open day than the reality of TOM and provisions are. Everything seemed really organized but in reality you had to chase everything by yourself because otherwise it doesn't get done. This was a real problem during the first year.' (...) 'Our exams often weren't on the list or lost. It was almost never organized beforehand, which caused a lot of stress and loss of concentration. This led us to being there half an hour early so we could run around university getting our exams. I felt that it was badly organized last year.' (S, 5).

Furthermore, students expressed confusion about the clarity and accountability of the procedures to gain access to the university provisions as well as the availability and the rights they have to adaptations and provisions.

'I didn't know that there are provisions such as the option to adapt your roster and have a different schedule. I was unaware of that.' (S, 4).

Such experiences also led to situations in which students believed that there were no provisions or adaptations that would be available to them. Students were told that it would be better to do it without the adaptations and or that they would be informed of their options only if the problem would persist over another full period.

Situations such as these are again an example of adaptive preference formation in which preferences for support are aligned with institutional responses that stated that it is better to try it without adaptations.

'Currently no standard adaptations have been made yet. My study advisor told me that there aren't really adaptations but that there some options but that it is preferred to try it without and I think so too. This means that they are somewhat looking at what can be done about extra time and my panic attacks and the agreement is that if it goes wrong for another period that there are things that could be done. The study advisor has not yet discussed what those things are with me. So I just have to wait and see and hopefully it will improve.' (...) 'One thing that would be really helpful is a place I can go to during practical exams to be alone but that is impossible, I've looked at it but it is impossible.' (S, 1).

Another point that was raised during the interviews was the lack compatibility of TEM and the university provisions in relation to the service for educational financing model (Dienst Uitvoering Onderwijs). Since TEM only awards credits if all parts of the module are passed students with disabilities can end up with zero credits even after passes two courses/parts of a TEM module.

'I went to one of the student deans (explaining my situation and progress) and she told me that I had zero ECs and I was not able to enrol for extended financing. However when you look at the DUO provisions for an extension of financial support they do not align with the UT structure. The UT structure does not align with the DUO structure.' (S, 2)

The new educational model at the University of Twente brought about change in the educational structure yet many of the provisions have remained the same. Current university policy states that students with disabilities can only be granted a one year extension on finishing their first year as well as the neglects making any policy on studying with a disability, reasoning that disabilities are too varied to make policy on. Both of these statements show that the inclusion of students with disabilities has not yet been completed as far as policy and organization.

One of the key informants spoke of the distinct possibility of procedural inequality due to a lack of uniform rules and procedures and insufficient knowledge or awareness concerning the rights that students with disabilities have in order to facilitate their studies. Such factors are, in the opinion of the key informant, the cause why students' rights are not yet realized in all cases. In addition to these factors the culture between different study programs can be an aggravating factor as some faculties or study programs are a lot more willing to act than others. Considering the challenges students face in matching their rights and entitlements to the information about the university provisions and the processes to acquire them there is considerable room for improvement.

4.3 ASSISTIVE TECHNOLOGY

In general students were unfamiliar with the concept of assistive technology and the use of technological support systems. However, technology can alleviate the burden of certain impairments by providing for alternate options to access and participate for students with disabilities. Generally students did not make use of the facilities or were unknowing of their existence. The library was not used very often and students therefore often did not have an opinion about the accessibility of the library. In line with the unfamiliarity of the library, students also did not know about technological support systems but most students felt that they did not need them. Nevertheless, there was one student who was fully unaware of the possibility and usage of such systems and after a brief explanation about how it could be used in a university setting was very interested. Moreover, the possible use of the technological support system was not discussed during various meetings with the student advisor.

'I have used Kurzweil¹ in high school but I don't use it anymore since I thought I would not need it during the university exams. I always thought that it wouldn't be available as well but maybe I did not pursue that strong enough. (After being told that it works for all texts and not only for exams) Oh really? (Very surprised) oh that would be a lot easier then!' (S, 3).

This is also noticed by one of the key informants who mentioned that the availability a technological support system such as Kurzweil is introduced on the open day for (un)limited studying, however not all students attend this open day where after they greatly depend on the information they receive from their study advisor. In addition, she also mentioned that some student gain knowledge about Kurzweil through their fellow students but that there are rumours and misconceptions about the effects of using technological support systems. For example, a rumour persists that the use of Kurzweil will be printed on the diploma. The stigma of being noticed as different and having this put on a permanent record makes students hesitant towards using a support system.

Considering extra financial burden for students, the experiences were focussed on delays in graduation as well as not having sufficient information concerning student financial aid programs.

'I already know that I will not finish my study nominally and that I will be delayed at least a year, because I cannot get my ECS this year since I am only following half the module. According to the student dean I could not qualify for the extra year of financing provision since I am currently doing half of the courses but not getting the points.' (S, 2).

There are several technological options available at the university and considering the relative ease and efficiency of their application raising awareness amongst students with disabilities for whom it could be effective. Doing so could enhance their ability to successfully participate in their studies and access the materials.

4.4 COLLEGE EXPERIENCES

The college experiences of students with disabilities are not easily encapsulated within one terrain in particular. In order to gain the most information, concerning their life in and around university, students were asked about their experiences in their social lives, student support, teacher support, staff support and general awareness.

4.4.1 SOCIAL LIFE

The experiences in the social lives of students varied: some students found it difficult to find time for their social lives and some did not feel they can tell people about their disabilities or feel rejected. However, for most students interactions with room or housemates are generally considered supportive.

'In my flat my situation goes without saying, which makes it easy to handle. They always ask how I am or if I need groceries or other things. There have never been issues surrounding my disability, even though I was scared of the beforehand.' (S, 4).

However, negative interactions were also in place for one student, whom experienced a lack of understanding in his environment, leaving the student feeling excluded. In addition, this student also mentions that he feels that *'no one would notice it when I would not be around.'* (S, 7). This led to the student feeling stigmatised about the psychiatric condition this student was afflicted with.

¹ Kurzweil is a technological support system designed to aid students by in reading texts out loud.

'The contact with my roommates is rather difficult, since my episodes are often very intense. Most of the times, my roommates do not know what to do with me and they do not really know how they should deal with my behaviour.' (S, 7).

Furthermore, when talking about engaging in their own social lives students felt that there were barriers. Students felt held back in going out or social activities since they were limited by workload and health issues. In general, students often experienced difficulties in combining their studies with their social life and health. Some students also experienced difficulties with roommates but these experiences were less prevalent among the interviewees.

4.4.2 STUDENT SUPPORT

Students experienced varying levels of support from their fellow students in study related interactions ranging from helpful to uneasy to difficult. The positive experiences related to assistance offered when confronted with impairments, these experiences were most present in the dyslexia group: dyslexia being one of the more well-known and in more visible disabilities in group work conditions. Such factors could aid in the acceptance and empathy since knowledge concerning the disability is often closely related to understanding.

'There are a lot of students with dyslexia within my study program which makes that there is more understanding among students for students with dyslexia. In projects I always let my fellow students know in advance that I have dyslexia and I will ask them to read my pieces of the report more carefully. So far this did not cause any problems.' (S, 5).

However, the majority of students have faced difficulties in the interactions with their fellow students. Students found it difficult to talk about their disabilities with their fellow students or faced difficulties in addressing the challenges they experiences.

'It is just very difficult to bring up your disability towards fellow students (...) in general I do not tell my fellow students that I have a disability. (...) It seems to be difficult for people to understand a psychiatric condition and I do not feel like telling the same story over and over.' (S, 7).

Additionally, students experienced a lack of understanding among their peers. Causing problems in group activities as well as the general feeling of acceptance experienced by students with disabilities. Moreover, problems such as the difficulty to discuss disability with the project group and the lack of understanding could have an effect on one another. However, even students who did discuss their disability still found group work challenging.

'A problem I have been facing is that students do not understand my problems. When I explain that I have difficulties with studying efficiently and therefore to stay motivated they do not understand it or mention that they also sometimes face difficulties with studying and staying motivated. But they do not understand that for me this is a true hindrance.' (S, 3).

In addition to this notion 'normal' students perceived the disability of the student as a problem of the student and often did not take the difficulties the students with disabilities faced into account. Whereas disabled students felt that 'normal' students thought that they were using their disability to be able to cut corners and get an easier time.

'Students understand my situation most of the times but it still is a problem of me. It is difficult for them because sometimes they get stuck with an extra task because I was not able to finish my part or

they have to fill me in on the details of an assignment. I noticed that this period it has been more difficult or harder that it should have been.’ (S, 2).

‘I think that Students feel like I am taking advantage of my disability while I am actually starting with a significant deficit and only want a level playing field.’ (S, 3).

The experience of students was that their acceptance depended on how comfortable they are with discussing their disability, their verbal prowess and their own actions with acceptance being the outcome if they succeed. However, such a view promotes the idea that acceptance needs to be earned by the disabled individual who is to be accepted regardless of his or her personal circumstances just as their fellow students should be. In relation to this notion one of the key informants stated that that the level of support greatly depends on the level of the student own acceptance, attitude towards his or her disability and their ability to discuss it. Those views seem to be dominant within the university culture and implicitly permit exclusion if a student is not sufficiently able to negotiate on his or her behalf with fellow students or university support staff, placing a substantial burden on the disabled student.

4.4.3 TEACHER SUPPORT

Most respondents indicated that they had little contact with teachers and therefore did not inform their teachers about their disabilities. Apart from the lack of direct contact they also felt that there is not a dire need to inform them. The students who had informed their teachers of their disability experienced varying levels of understanding and consideration from their teachers. In some instances teachers showed more understanding for the challenges and needs of the student in question. However, most experiences in informing teachers had more varied results. Students were confronted with teachers who saw the TEM structure as a set structure and something that has no room for adaptations and individuality, where other teachers were more understanding and interacted considered the students’ needs.

‘I feel like some teachers are more aware of students with disabilities than other teachers. For example, my statistic teacher indicates in her e-mail about the retake that students can inform her when they need extra provisions, so she will make sure these provisions are available. Where other teachers do not take students who need extra provisions into account and just say that it is not possible.’ (...) Last year I had an exam where I indicated that I had extra time but then the teacher said that I could not get extra time because the classroom was only booked for the normative timeframe. And then you have to argue that I am entitled to extra time.’ (S, 6).

In addition to this notion a student noticed that not all teachers know how to cope with the manifestations of their disabilities. Therefore creating impairments and additional barriers for students realizing their potential and leaves the student to fend for themselves in trying to arrange the support and adaptations required.

‘During the practical exam there are no real teachers, only student-assistants who guide us. Most of the times I explain my situation to the ones I am working with, so they know that I can have a panic attack.’ (...) ‘When I have a panic attack some student-assistants try to get me calm and bring me back, but this often does not work. When I have a severe panic attack I am not able to finish my practical exam.’ (...) ‘So the supervisors are aware of the situation but not all supervisors know how to handle my situation, this depends on the supervisor’. (S, 1).

In teacher support there were also difficulties with the discretionary nature of understanding the needs for students with disabilities. Students often felt that they could not or should not disclose their disability.

However, this poses a problem in TEM where certain teachers are now tutors who play a bigger role in the information and guidance processes as well as the supervision of group based work. Two students mentioned a positive experience with a tutor and a module coordinator where coordination was required, showing that good experiences are indeed possible with an empathic and pro-active approach.

'The coordinators of the modules are also aware of my situation and postpone deadlines for me so I have the time to finish the assignment and indicate that it does not matter that I hand my assignment in later than the other students. They give me all the space and extra time there is when I need it.' (S, 2)

The solutions and methods used by teachers, tutors and coordinators can be successful or flawed yet they inevitably both suffer from a lack of institution wide transparency and clarity in the rules of procedures of dealing with students with disabilities. One of the key informants mentioned that currently information concerning interventions, approaches or adaptations is not shared in a structural matter, some best practices can be discussed in a staff meeting yet such knowledge is not structured which leads to each teacher, tutor and coordinator devising their own method. The current structure is one in which tutors, coordinators and teacher perceived by students as being on the forefront of the university support system without sufficient training, leaving at best mixed and often negative experiences with the students who engage with them.

4.4.4 STAFF SUPPORT

Student support is the name for the functions who offer guidance to students within the University of Twente.

4.4.4.1 EXPERIENCES WITH STUDY ADVISORS

All interviewed student were in contact with their study advisor who plays a significant role in organizing the daily practice of students, especially so for students with disabilities. The classification of the experiences varied: several students found their study advisor to be positive, knowledgeable and helpful in acquiring the support they needed.

'In consultation with my study advisor I made the decision to only completing parts of the module so that next year I can complete the rest and get the ECs. (...) I really like the support of my study advisor, he is always there for me and he understands my situation. Moreover, he always comes up with solutions which fit my abilities and makes sure I do not have to worry regulations.' (S, 2).

However, other students stated that the advisors did not fully inform them of (all) the provisions of the university that could alleviate their impairments such as technological support systems or supporting staff.

'I am in contact with my study advisor but it was never brought up that I could use Kurzweil for reading articles.' (S, 3).

'Currently I am only in contact with the study advisor but he never told me anything about the student dean or student psychologist and what they could do for me. It feels like the system is constructed in such a way that it consists of different pieces that do not send you to the next piece.' (S, 7).

Furthermore, one student found the process to make the initial contact with the student advisor difficult due to a psychiatric disability. Indicating students could face difficulties in the first step of engaging with the support system. The variety of good, incomplete or bad experiences with study advisors indicate a structural problem in the organization of support at the university: the reliance on discretionary decision making, the difficulty to oversee the process for students and the lack of clarity of what is required receive aid attribute to these organizational issues.

4.4.4.2 EXPERIENCES WITH THE STUDENT DEANS AND DIVERSITY COORDINATOR

Outside of the bounds of the study and faculty, there are student deans as well as a diversity coordinator who form an independent support platform for students of the university. They are in place to support and guide students in regard to the procedures and facilities, whilst keeping the best interest of the student in mind. The student deans are at the moment also considered confidants for personal issues that impact study performance, whereas the diversity coordinator has a more practical role in organizing the open day for students and with a disability coordinating support and adaptations. However, not all students are aware of the existence and/or the availability of student deans or the diversity coordinator and what they could offer students. Furthermore, one key informant mentioned that this lack of knowledge works in both directions as the diversity coordinator has a significant lack of data concerning the adaptations used, the population of students with disabilities and in general feedback on how they are supported. This claim is underscored by the university policy paper concerning TEM as it states that the university has no data concerning the amount of students with disabilities. If there is no data about the amount of students with disabilities, only students that have registered at the different levels of staff support, it logically follows that there is no complete data about the use of provisions or adaptations. Combining the lack of data with the fact that most of students are unaware about what the different levels of student support leads to a situation in which most student are not familiar with the diversity coordinator and in which the diversity coordinator is not familiar with most students with disabilities.

Nevertheless, one student who was in contact with the student deans found it to be very helpful for her in organizing and structuring her study and financial support.

'Before I even came here the student dean sent me all sort of information and forms which enabled me to send in a request to remit my college debt from my prior education.' (S, 4).

However, another student report that the student dean was not able to help the student and was not knowledgeable about the university provisions and additional financial aid.

'I went to one of the student deans to gain information about an extension of financial since I already know that I will not finish my study nominally and that I will be delayed at least a year, because I cannot get my ECS this year since I am only following half the module. According to the student dean I could not qualify for the extra year of financing provision since I am currently doing half of the courses but not getting the points.' (...) *'I had the feeling the student dean had little knowledge about extension of finances and that she could not help me. All the information she gave was non-information or incorrect. This was really disappointing to me.'* (...) *'At the end of the conversation she also mentioned she could not help be and it was better for me to visit another student dean.'* (S, 2).

The relative anonymity of the student deans in conjunction with the varied experiences show similarities with the challenges experienced in teacher support: discretionary nature of support, students not knowledgeable of the existence of parts of the support system, lack of clarity and overview on the procedures and possibilities. Students often do not know whom to address their concerns to. In their view the roles of mentor and tutor encroach onto the territory of the study advisor: they do not have the expertise or organizing power yet are in closer contact with the students, creating misconceptions about their role. This issue was also addressed by the key informants. Furthermore, a key informant mentioned that due to a lack of information sharing the diversity coordinator does not receive the required signals and experiences and therefore cannot adjust the available training programs as there is no direction to go on. This leads to a situation in which most training moments focus on intervision in conjunction with the student psychologists and concern topics as how to react to students and how to redirect them. However, whilst intervision moments with student psychologists ensures knowledge on 'dealing with' students with disabilities they do not alleviate the pressing issue of knowing what to do and what adaptations are available.

4.4.5 GENERAL AWARENESS

General awareness focuses on the intersection of cultural and structural inclusion with the lives and experiences of students at the university. Students mention mixed responses on the level of empathy and understanding from fellow students, teachers and staff as can be seen in the respective paragraphs. There are examples of students feeling welcome and accepted. However, there were also less welcoming experiences where students experienced stereotyping, feeling alone and not able to discuss their disability. One of the key informants stated that such difficulties do exist, discussing your disability is experienced as difficult and currently there is little guidance or support from the university staff in an educational structure which focuses strongly on cooperation in group and project based work on this matter we see again similarities to previous challenges faced by students with disabilities, yet here it focuses on acceptance and awareness. Whether one is accepted into the general culture or experiences awareness is reliant the preferences of the individuals surrounding them as there are no programs or visible artefacts that propagate a climate for full inclusion.

'(About a lack of understanding) and that is noticeable with teachers, tutors and fellow students. It is just really difficult to feel support and actually bringing up the subject. That is something I would find really hard to do and I don't feel like there is a general understanding for people with a disability within the program'. (S, 7).

The experienced difficulties lead some students to doubt themselves as well as show signs of adaptive preference formation along the lines of the notion that they are already lucky to be at university and therefore are in no position to claim anything else since they start to feel that the 'fault' lies with them and their disability. Although students with disabilities are part of the university population and are therefore theoretically included in the university culture, the reality is not always as inclusive or supportive. Furthermore, the university currently has no awareness program or policy concerning the matter apart from support processes that only concern the individual student. This creates, for some students, a feeling of being alone in their plight as they experience a lack of empathy and understanding from their fellow peers without an institutional culture of inclusion and support.

When looking at all of the different aspects college experiences it is clear that the experiences with fellow students, teachers and staff varied substantially. With regard to fellow social life students found their environment generally helpful, yet found difficulties in the combination of health, study load and social life. When looking at interactions with fellow students the majority of students had faced difficulties concerning a lack of understanding from fellow students concerning disability. The interactions with teacher interactions were relatively low, students often did not interact with teachers or professors concerning their disability. In staff interactions students often faced procedural inequality and the results of discretionary decision making related to their facilitation. Furthermore, there was confusion about the organizational structure and whom to contact. When looking at all aspects in relation to general awareness most students felt a lack of understanding, awareness and overall acceptance.

4.6 MAIN FINDINGS INSTITUTIONAL ANALYSIS

When analyzing the full set of data it became evident that there were several recurring key points that are invaluable in describing the students' experiences and the degree to which they had access to and could participate in the curriculum as well as university life. These key points were: the structure of TEM, the arbitrary nature of whether or not adaptations were granted, a lack of empathy, and experienced exclusion of students with disabilities. Furthermore, the institutional analysis revealed that the University of Twente is not able to provide an institutional environment conducive to full inclusion of students with disabilities in the in the university policy nor the general culture.

4.6.1 TEM STRUCTURE AND POLICY

The policy behind the TEM structure, which considers that studying is a full time occupation, was in almost all cases a challenging proposition for students with disabilities. TEM is structured and organized as a set program that requires a full time. However, the assumption of studying as a full time occupation implicitly excludes other options. Moreover, such a structure creates a high workload for a student in an environment in which most of the program is planned out in deadlines and where there is not a lot of room for individualization. Furthermore, the room for individualization is limited as the different courses within a TEM module can, in principle, only be completed as a whole. This lack of individualization makes it, at least in theory, impossible to divide the workload for students who are not able to follow the entire program at once.

There are no guidelines in place for university staff on how to deal with the challenges experienced by the students. However, there is documentation concerning the Universities policy on the TEM structure and studying with a disability. The document limits the extension students have to complete the first year of their bachelor, states that no general policy can be made for students with disabilities and that the university has no data concerning the student population of students with disabilities. Moreover, there is no mention of how the TEM structure and students who cannot function within the confines of TEM, because of their disability, are to be facilitated. Nevertheless, in practice individualized adaptations are made, yet there are no guidelines in place and as such vulnerable for procedural inequality and arbitrary use of discretionary power by university staff. The procedures for such adaptations are often lacking in clarity, transparency and are reactive in nature, resulting in aid provided to some students yet leaving out other students with equally pressing needs.

4.6.2 ARBITRARY ADAPTATIONS

Students with disabilities were prone to the arbitrary nature of adaptations and support measures at the University. As discussed earlier the current TEM structure provides barriers for students with disabilities and adaptations are needed to provide them with an environment in which they have equal opportunities to succeed to their best potential. However, gaining information about the possibilities as well as acquiring adaptations was difficult for many students.

The first moment students can get acquainted with the possibilities and the facilities of the university is at the open day for (un)limited studying. During the open day students get an introduction into all options the university has regarding facilitation. However, not all students visit this open day, whereafter these students are reliant upon individual support staff to offer that same bundled package of information that is available during the open day.

Not having the same package of information became problematic for students as the supportive staff did not fully inform them of (all) the provisions of the university has to offer that could alleviate their impairments such as technological support systems or other supporting staff. Consequently, students were often being told that adaptations were not possible or that there were no provisions that could help them, which led students to think that nothing could be done. This left students to doubt and blame themselves, becoming accustomed to the institutional environment and expecting nothing more. Such examples of adaptive preference formation were prevalent in the students' answers; one of the most pressing examples was given by one student: the student continually faced severe panic attacks with required practical examination that could have been alleviated. The student advisor mentioned that there might be options and that if her panic attacks would get worse they could look into it. However, the student was strongly directed to take a route that did not involve any adaptations yet still felt that the university was offering all they could, blaming herself and her disability for the corresponding occurrences. Consequently, the student did not have full insight into the possibilities, the process or the requirements which created an information gap. Several students had similar, albeit less extreme, examples and after being told several times that nothing could be done they seemed to lower their

expectations and behaved according to the institutional setting in which the impairments for reaching their potential still existed. Leaving the barriers in place and leaving the corresponding burden with the disabled student. Such experiences were in stark contrast with the experiences of students with certain standardized adaptations such as the ones for dyslexia. Here, most of the experiences were very positive. However, in these situations the discretion of university staff is less in play than with the more unique cases. This leads to a situation in which there is the distinct possibility that the certain students with disabilities are facilitated whilst others in equally pressing positions are not. As explained above, such experiences were more prevalent amongst the more unique or difficult cases, which were dependent on the positive outcome of discretionary power.

4.6.3 EMPATHY, EXCLUSION AND CULTURE

Most students with disabilities experienced a lack of understanding from either university staff or teachers as well as a lack of acceptance from fellow students. These negative experiences often related to them not being able to successfully discuss their disability or 'negotiate' the terms of their participation. Some students believed this was just the way it goes. Such signs of adaptive preference formation and the lowered expectations of students as to being included in the culture became more prevalent the more students were faced with these adversities.

Nevertheless, there were examples of students being able to secure their place within a group when they, by chance or determination, came across a group of students or a teacher that did accept them. However, not being accepted and included should not be the default position for any student regardless of their (dis)abilities as it forces students with disabilities into an oppressed minority position and justifying prejudice with students and teachers concerning their presence at the university.

Currently, institutional support is lacking for students with disabilities. There are no programs in place to enhance awareness of empathy for students with disabilities. The lack of external action was also noticed by students with disabilities as they felt that there was no institutional support for awareness or understanding of the challenges facing students with disabilities.

One of the key informants recognized that such difficulties do exist. In the TEM structure there is a strong focus on cooperation and group work which led, in several cases, to students experiencing stigma, exclusion and stereotyping during those activities. An explanation for these experiences can be found in the lack of supervision, support or knowledge concerning disability by students, teachers and staff. Such views are aggravated by the fact that there is no attention paid to this topic to the general population, currently there are no programs, policy or artefacts that promote awareness and full inclusion in regard to students with disabilities. This makes disability solely a case, and often a problem, of the individual and separates them and their needs from the general culture.

Summarizing, cultural inclusion of students with disabilities at the university is at this point a theoretical proposition. Without any institutional support the reality of students with disabilities was often not supportive and lacked in empathy. The lack of understanding from fellow students and the absence of institutional focus on general awareness led to disability being a problem of the individual. The lack of awareness, guidance and knowledge also caused problems in the group and cooperation focused TEM structure where students often felt left in situations where they had to earn their right to be there instead of feeling included as an accepted part of the university population. All these factors place additional strain on the disabled student, who often is already inhibited in that regard.

5. CONTEXTUAL ANALYSIS

Given the recognition of the CRPD by the European Union and the Netherlands (European Union, 2010, de Jong, den Exter & Hulst, 2013) there are significant influences on the context in which the University of Twente presides: the coming, full implementation of the CRPD combined with the Commission Maatstaf guidelines (2010) as well as rulings from the Netherlands Institute for Human rights (2009; 2013; 2014; 2015) provide the opportunity to reflect upon in findings of the institutional analysis with a wider scope.

Where the institutional analysis provided greater insight into the functioning of the University of Twente concerning the inclusion of students with disabilities, the contextual analysis focused on the interconnections of the findings. The aim of such an analysis is to grant a broader view on the situation at the University of Twente: allowing for insight into the ability of the University of Twente to offer students with disabilities a level playing field in relation to national and international legislation and guidelines. Therefore, the purpose of the contextual analysis is to analyze and compare the situation a present at the University of Twente with the CRPD, the European Disability Strategy 2010-2020 and national legislation and guidelines in conjunction with the key points of the theory. The comparison of the findings of the institutional analysis against these documents and theories granted insight into the fourth sub question:

- How does the experienced practice at the University of Twente compare to international guidelines and national guidelines?

The theoretical aspect of the analysis concerns the level to which students experienced (un)equal opportunities in their study as well as the cause of the experienced impairments. The theory of equality of opportunity was used to interpret experienced inequalities and the merits of the differences in opportunities, access and participation. Outcome inequalities could stem from the effort of the individual and be justified in their respective manner as situations related to the responsibility or choices of the student in question. However, inequalities in opportunity could relate to circumstances beyond the individual's control or due to their type, hence justifying institutional action to provide a level playing field in order to maximize the potential of students (Roemer, 1998; Philips, 2006). Related to the notion of maximizing potential and obstacles that prevent students from achieving such goals there is the question of what impairs them from participating fully in society. The social model states that a disability does not impair a person; rather the institutional environment which cannot facilitate the disability causes the impairment (Holloway, 2001). In an educational setting such impairments could relate to rigid structure of the educational model, lack of adaptations in testing as well as the curriculum, failure to include students with disabilities in structure and policy as well as insufficiently combatting prejudice and exclusion by not fully incorporating them into the university culture (Shevlin, Kenny, McNeela, 2004).

Apart from the theoretical aspects, there are several legal guidelines concerning disability and education. On the international level there is the CRPD and the European Disability Strategy 2010-2020. These documents focus on access to education, lifelong learning, inclusion, discrimination, training of staff, structural and cultural inclusion and external action. In order to secure these points the CRPD states that all persons with a disability have a right to education, equal opportunities and are not to be discriminated against. Persons with a disability are to be enabled and facilitated to develop to their maximum potential. For such maximization, support and individualized adaptations are too be made. Furthermore, staff training is to be implemented throughout all levels of the educational institution regarding awareness, communication, educational techniques and support options (UN general assembly, 2007). The European Disability Strategy 2010-2020 fully supports these goals of inclusion and highlights the same key areas as the CRPD in the European Disability Strategy, with the EU as well as the Netherlands signatory to the CRPD (UN general assembly, 2007; European Union, 2010).

On the national level the inclusion and facilitation of students with disabilities is guided by the principles set out by the Commission Maatstaf (2010). The commission established a seven point baseline for higher education in the Netherlands concerning: the availability of information, the level of physical access, the support and guidance for students with disabilities, the level of expertise, the structure and possible adaptations to learning routes, adaptations concerning testing and examination as well as quality control and continuity. Nevertheless, conflicts can arise in situations where opinions as well as interests can differ between students with disabilities and the institutions of higher education. Such cases can be brought before the Netherlands Institute for Human Rights. Important cases and rulings of this institute concerned situations in which there was insufficient staff action whilst there was knowledge of the disability; arguing that awareness of the disability demands proactive communication and institutional action (Netherlands Institute for Human Rights, 2014). The institute also stated that it is of outmost importance that procedures for adaptations and other support measures have a high degree of clarity, are known to students and that they are able to check the processes of the procedures (Netherlands Institute for Human Rights, 2009). Furthermore, when an institution of higher education seeks to claim undue burden to deny adaptations or support measures it needs to provide comprehensive evidence to support their claim for that specific case, general statements of inability or a brief investigation are considered insufficient (Netherlands Institute for Human Rights, 2013).

The baseline set by the Commission Maatstaf (2010) as well as the rulings by the Netherlands Institute of Human Rights can be seen as a measure for structural inclusion of students with disabilities in the practice and policy of higher education institutions. For the analysis the combination of the theoretical aspects with the national and international legislation and guidelines provided deeper insight into the inclusion of student with disabilities. . The analysis is categorized along the lines of the results of institutional analyses: the TEM structure and policy, the arbitrary nature of adaptations, the level of empathy, exclusion and cultural inclusion.

5.1 TEM STRUCTURE AND POLICY

The current way TEM is structured in policy and practice is often experienced by students with disabilities as debilitating instead of facilitating. The education structure causes problems for students with disabilities due to the high workload, inflexibility of the program, the focus on group work and the abundance of deadlines and exams. Furthermore, the absence of facilitation for individualized programs in the TEM policy makes the program difficult to access for students with disabilities since it is, in principle, an all or nothing approach: either you follow all courses as a module at the same time or you cannot participate in the educational model. This characteristic of TEM seems to stem from the ideology behind TEM which sees studying as a full-time occupation. This assumption of normality explicitly excludes students who are unable to comply with the workload associated with a full-time occupation. The inclusion of students with disabilities in the policy is rather scarce, there are no general guidelines on how to deal with such challenges and there is no data available concerning the number of students with disabilities. The policy notions related to disability may even be considered detrimental, most passages concern what is not possible or are concerned with limitations:

- time extension for students with disabilities to complete the first year of their bachelor is limited to a maximum of a one year extension (University of Twente, 2014b).
- individualized programs are not possible (Steens & Oude Alink, 2014).
- since the group of students with disabilities is varied no general policy can be made (Steens & Oude Alink, 2014).

Documentation related to what is possible or how to deal with barriers is missing. Such state of affairs leaves structural inclusion lacking at the current time. Moreover, it is concerning that the University of Twente has no data about the population of students with disabilities whilst simultaneously stating that no general policy can be made since the difference within the group is too large. This seems to be a self-fulfilling prophecy: if no data is gathered than multiple assumptions could be true apart from the one stated.

The question that remains is whether an educational model that is inflexible, inaccessible and unwilling regarding facilitation is able to comply with the rights to education, non-discrimination and adaptations. In practice these rights mean that students should be informed about the availability of support programs, have physical access as well as access to the program and materials and be able to receive adaptations barring undue burden or limits of the program. Whether institutions of higher are able to offer students with disabilities the opportunities to access and participation in the educational program is measured by the guidelines of the Commission Maatstaf (2010). These guidelines are based on the notion that students with disabilities should have the same access to education and the same ability to participate with as few barriers as possible. In the TEM policy it states that no individualized programs are possible which is in contradiction with the adaptation of the curriculum section of Commission Maatstaf (2010). Furthermore, there is no specific mention of any adaptations of testing or exams made nor is there mention of staff training and quality control. These factors in combination with the lacking policy positions show that the University of Twente is, with the current institutional environment, unable to comply with these goals. Apart from the national guideline the CRPD and the European Disability Strategy also focus on accessibility and inclusion at all levels of education. Stating that it is required to support people with a disability to create the opportunity for them to access and participate in education to develop themselves to the best of their abilities. This includes providing support, adaptations, staff training and external action to promote awareness in order to create an environment of equal opportunity (UN general assembly, 2007). The European Union ratified the CRPD and underscored and institutionalized those goals in the European Disability Strategy 2010-2020, adding that it is invaluable to include people with disabilities to prevent isolation and exclusion so that they can maximize their potential (European Union, 2010).

There seems to be a stark contrast when comparing the goals of these documents and the underpinnings of the theory of equality of opportunity as well as the social model of disability to the current state of TEM. The social model of disability deems the manifestation of impairments in social environments to be caused by the institutional environment rather than the disability. An example of this would be that being blind would not necessarily impair a student if braille is readily available for all study materials, however if the institutional environment was unable or unwilling to facilitate braille the visual disability would cause impairments. The theory of equality of opportunity comes into play in the sense that, in the case of TEM, students' often experienced additional barriers to access and participation due to the way TEM is organized, regardless of their own actions or disability. These findings are the opposite of what could be considered just reasons for inequality, as not the effort but the circumstances are the main proponents for the experienced loss of opportunity. Therefore, warranting institutional action to alleviate the unjust loss of opportunity.

The previously mentioned absence of institution wide policy on adaptations and facilitation, combined with the mostly excluding policy mentioned earlier, create a culture in which the burden of the impairments rest solely on the individual student with a disability and causes a reactive approach to support and guidance. Failure to address such barriers leads to inability of students with disabilities to engage in their study on equal footing as their counterparts. Boxall, Carson and Docherty (2004) also state that such barriers can lead to the exclusion and impairments which was also experienced as such by the interviewees.

Furthermore, prior research shows that institutions for higher education often struggle with the inclusion of students with disabilities. Such challenges are often related to the inability of the institution to bridge the gap between the needs of students with disabilities and the provisions and support made available by the institution. These gaps can lead to the structural and cultural challenges (Cnockaert et al. 2010). The analysis of the experiences of the students with disabilities at the University of Twente found similar gaps in the structural framework at the university, as originally found in the study conducted by Tinklin and Hall (1999). Due to the structural barriers and challenging interactions with university staff students with disabilities felt an increased burden since student staff actions were often lacking and reactive in nature, which is akin to findings of Holloway (2001).

Shevlin Kenny and Mcneela (2004) concluded that such challenges often coincide with a lack of inclusion of students with disabilities in the development of policy and procedures. This finding is similar to the situation of the University of Twente where proactive and organized inclusion is absent. According to Cnockaert et al. (2010) this absence of proactive and organized inclusion can be seen as an absence structural inclusion which refers to inclusion of the needs of students with disabilities in policy as well as participation in the development of such policy. However, the University of Twente is not able to establish structural inclusion due to a lack of policy, a lack of data and an exclusionary nature of the provisions in the policy. Furthermore, the assumption of normality in the educational structure creates a troublesome proposition for students with disabilities. The lack of attention for all but the nominal in the TEM structure and policy generates barriers for students with disabilities in accessing and participating to their full potential. Therefore, one can conclude that the current university framework and state of structural inclusion aggravates rather than moderates the manifestation of impairments.

5.2 ARBITRARY ADAPTATIONS

To create a level playing field for students with disabilities, adaptations and individualized support measures are often required. Adaptations can take the form of individualized programs, special support, technological systems, different testing methods and so on. The CRPD and European Disability Strategy 2010-2020 both underline the importance of facilitating the needs of students with disabilities in order for them to maximize their educational potential (Un general assembly, 2007; European Union, 2010). In addition, the Dutch legislation for people with disabilities states that students with disabilities have the right to adaptations in various forms (WGB/cz). Furthermore, the Commission Maatstaf (2010) states that students with disabilities should have equal opportunity to access and participate in higher education. To ensure these goals students should be informed of the availability of adaptations and support measures that can be made. However, such adaptations and measures should not place an undue burden on the institution of higher education (Commission Maatstaf, 2010). In order to safeguard the rights of students the Netherlands Institute of Human Rights ruled that any institution of higher education has to extensively investigate the students' needs and substantiate the claim of undue burden to prove that granting a specific support measure or adaptation is to be considered unreasonable in that specific case (Netherlands Institute for Human Rights, 2013). Although, the TEM policy does not allow for structural adaptations in its current form, this does not void the right to adaptations nor does it negate the needs of students with disabilities at University of Twente. The lack of institutional guidelines and oversight created a structure that is based on arbitrary and discretionary decision making for individual cases, without any safeguards to combat procedural inequality. The arbitrary nature and variance also played a role in the differences amongst faculties. Since there is no unified approach each faculty can choose what kind of support they grant or deny and in which situation. Consequently, students' experiences with the support system and related adaptations were varied. Most the experiences were defined by a lack of clarity and transparency in the processes regarding the allocation, leaving students often under informed. Most students were unaware of the full extent of the possibilities or were told that it would be better to do it without adaptations and were unsure about who to contact since several university staff roles overlap.

Nevertheless, there is a clear distinction in student experiences regarding the processes surrounding the adaptations. The experiences of students that were reliant on mostly standardized adaptations, for which less discretionary action was required, were mostly positive. However, the experiences of students with more unique disabilities and needs, where university staff decisions played a significant role in the allocation and implementation of the adaptation, were generally negative. The contrast between standardized and individual adaptations led to a situation in which unequal treatment of students with equally pressing needs was prevalent. Students who had impairments that could be resolved with standardized adaptations were often facilitated whereas students with more unique or difficult impairments were dependant on the unclear and discretionary processes and therefore often faced difficulties acquiring the support or adaptations required.

Resulting in a structure in which equal opportunity is only attainable if the impairments can be resolved by standardized adaption or is dependent on the outcome of a discretionary process. Nevertheless, these are circumstances where, regardless of the choices and effort of the student, a loss of opportunity occurs since the student is unable convert the resources presented into functionings and can no longer attain a just and equitable outcome (Sen, 1985). However, providing a level playing field for circumstances the student had no part or choice stands at the basis of providing equality of opportunity as the individual student cannot bear the responsibility concerning the allocation of adaptations.

In relation to the allocation of the adaptation it became evident that the general organization functions in a reactive manner. Even when the supportive staff was aware of the conditions of challenges of the student with a disability, pro-active communication was almost non-existent. Furthermore, students faced difficulties with whom to address for their questions and concerns. This situation led to students being unaware of options whilst creating leaving a substantial barrier for students as they are completely responsible for initiating and checking the process. The institute of human rights has ruled on two cases concerning communication and responsibility for adaptations. The first ruling concluded that the institution for higher education was responsible for insufficient staff actions since the institution and or staff were aware of the disability (Netherlands Institute for Human Rights, 2014). In the second ruling it was stated that in order for student to be held responsible for the process of awarding adaptations or asking for support, the institution of higher education is required to make sure the procedure and adaptations are known to the student, that the student is able to check the process and that communication regarding such matters is pro-active towards the students (Netherlands Institute for Human Rights, 2009).

The combination of the communication challenges, the reactive nature of support and the arbitrary use of adaptations as well as the lack of transparency regarding the processes created a situation in which there is no oversight on which adaptations are used, how they are used and why they have or haven't been allocated. Students with disabilities are therefore not able to rely on the University of Twente to secure their rights to education, adaptations and in general to provide a level playing field for students with disabilities. The problems students experienced were aggravated by the way information concerning adaptations, support and the university framework is given. Students can attend an open day specific to students with disabilities at which they are introduced to all aspects of the university support system including the supporting staff. Consequently, students who have visited the open day were more aware of the possibilities at the University of Twente. However, the open day is mostly visited by students from a specific group of disabilities (mostly AD(H)D and forms of autism). This means that a large group of students with disability misses this information and that for those students do not receive this bundle of information. In other words, students who did not visit the open day they are reliant on the information they receive from the supportive staff member they first come in contact with.

5.3 EMPATHY, EXCLUSION AND CULTURE

The experiences of students with disabilities are not wholly shaped by policy and structural framework for support and adaptations. In addition to such structural inclusion, the experiences of the students with disabilities are highly dependent on the attitudes and the knowledge of staff members (Tinklin, Riddell & Wilson, 2004). Therefore, structural inclusion can be seen as only one half of the concept of inclusion with the cultural inclusion as the other. Cultural inclusion refers to the attitude of fellow students and staff towards enabling students with disabilities, the level of empathy in interactions and general awareness concerning disability (Cnockaert et al. 2010). Key factors in cultural inclusion revolve around the level of awareness and empathy experienced by the student with a disability. When awareness and empathy are lacking it often leads to lack of attention for the challenges of studying with a disability as well as wrong perceptions or stereotyping. These problems persist since the level of cultural inclusion in higher education is, in most cases, lower than the structural inclusion (Cnockaert et al., 2010).

However, in the case of the University of Twente both types of inclusion seem to be absent. Students often did not feel that they could rely on the structural framework and policies nor did they feel included in the cultural aspects with regard to empathy and awareness. Students often felt that the staff and their fellow students exhibited low levels of awareness and empathy for studying with a disability. Nevertheless, there were variances: some students felt they were understood when there were a lot of students with a similar condition in their classes, mostly concerning students with dyslexia. However, in most cases students felt unable to discuss their disability, since the environment that was not considered to be emphatically to the impairments the students with disabilities faced. As the saying goes: ignorance breeds intolerance, which is likely to have impacted the culture at the university. Especially given the lack of institutional attention for awareness and the relative anonymity of students with disabilities. The cultural climate at the university proved to be challenging in conjunction with an educational structure that relies heavily on group work and cooperation. Students with disabilities felt that they had to disprove stereotypes and work harder to earn their right to be accepted.

An explanation for the experienced lack of empathy can also be found in the conflict between the medical model view and the social model view (Borland and James, 1999). In the medical model view disability is something that is to be rehabilitated and purely concerning the disabled, making for an exclusionary view of students with disabilities. Whereas in the social model view, on which facilitative policy is based, the disability is considered nominal and the impairment only manifests if the environment is unable to facilitate. Currently, the perception of staff and fellow students closely relates to the medical model putting the burden of the impairment on the student with the disability. Whereas, a perception from the social model of disability would create an inclusive environment for students with disabilities. The benefits for this kind of view are underscored in the study of Tinklin, Riddell & Wilson (2004) who found that positive experiences for students are profoundly impacted by the attitudes and knowledge of staff members. Whereas, student experiences are more likely to be negative in the absence of such attitudes and knowledge.

The lack any institutional support or guidelines concerning awareness at the University of Twente creates an environment in which most students' experienced little understanding from fellow students or teachers. Knowing the importance of an inclusive environment for the experiences of students with disabilities the current status quo is in stark contrast with the external action and staff training paragraphs of the CRPD and the European Disability Strategy 2010-2020. The CRPD and European Disability Strategy 2010-2020 both stipulate the necessity for the inclusion of staff with disabilities as well as training staff at all levels of education in matters of disability awareness, appropriate or alternative communication, appropriate or alternative educational techniques and materials in order to support students with disabilities. Furthermore, the status quo is also not aligned with the guideline set out by the Commission concerning student guidance and expertise. Students with disabilities are often reliant on tutors and module coordinators who have no training or expertise in matters of support students with disabilities.

5.4 MAIN FINDINGS OF THE CONTEXTUAL ANALYSIS

According to Roemer (1998) circumstances of people in which they have no part of are to be eliminated if reasonably possible in order to provide equal opportunity in society. Furthermore, as Scullion (2000) stated, education has a role in combatting unequal positions and providing a level playing field for students. The current practice of the University of Twente is not able to provide such equality nor combat the unequal positions often faced by students with disabilities. The experienced barriers and the inability of the institution to provide an inclusive environment are caused by the lack of policy concerning students with disabilities, a lack of data and the limitations of the all or nothing educational structure of TEM. These challenges are enhanced by the assumption of normality that is seen throughout the educational structure.

Hence, creating an institutional environment in which the individuality of students with disabilities, who are by definition not nominal, are often overlooked in their needs: creating barriers to access and participation as well as to the maximization of their potential. Therefore, the conclusion is as such that the University of Twente is not able to provide the expertise, facilitation and support mentioned in the Commission Maatstaf (2010) nor is it able to provide the level playing field and equality of opportunity that is supported by the CRPD and the European Disability Strategy 2010-2020. Furthermore, staff training related disability, as required in the CRPD and the European Disability Strategy 2010-2020, is not practiced by the University of Twente at this moment.

The absence of policy, structure, training and expertise led to a culture in which disability is often an exclusionary attribute in relation to the ability to fully access to participate in all parts of the educational program. A position of exclusion or not being accepted as a full member of the university culture is always an unacceptable default position, regardless of the (dis)abilities of the person and is in conflict with the CRPD, the European Disability strategy 2010-2020 as well as the Commission Maatstaf guidelines (2010). Students often found themselves forced in a position where a disability is only a problem of the individual. Students experienced having to justify their presence or disability whilst being confronted by prejudice amongst their peers or university staff. Students with disabilities are often already subject to increased strain and when they have to disprove stereotypes or prove that they belong at the university, barriers to access and participation only increase. Currently, the exclusionary factors are aggravated by the lack external action: there are no programs or policies that promote awareness and full inclusion with regard to students with disabilities. As mentioned before, such policies and external actions concerning awareness are to be in place according to the CRPD and the European Disability Strategy. Furthermore, as Scullion (2000) concluded, when educational institutions do not sufficiently address such issues they are neglecting their role to educate mindful professionals and scholars who are aware of diversity and their role of combating stereotypes based on prejudice. Taken all these factors into account, one can only conclude that inclusion is purely a theoretical proposition at this point in time at the University of Twente.

6. CONCLUSION AND DISCUSSION

6.1 CONCLUSION

Institutions of higher education often find it challenging to offer students with disabilities an equal playing field. To assess the situation concerning access and participation at the University of Twente it is important to carefully define what the effects of a disability entail in an educational setting. The difficulties of disability in education can take the form of impairments to equal opportunity, access and participation. Such impairments often manifest due to the institutional environment, the interactions with fellow students or university staff and are not due to the disability itself. Consequently, students with disabilities are often faced with institutions that can be inaccessible or unwilling to facilitate. These factors can lead to the formation of barriers in gaining access to as well as participating in their studies.

The first sub question concerned what constitutes equal opportunity for students with disabilities. As mentioned before the notion of a level playing field is fundamental to the concept of equal opportunity. Therefore, the answer to this question can be found in the alleviation of factors that contribute to the various impairments in an educational setting as experienced by students with disabilities. According to the theory of equality of opportunity students with disabilities should have full access to an educational program regardless their circumstances as these factors go beyond the control of the individual should therefore not be decisive in their opportunities (Roemer, 1998). To create this level playing field the individual also has to be able to convert the resources given into functionings that have meaning (Sen, 1985). In practice this often means that through adaptations students with disabilities gain the ability to convert given resources into functionings: constituting full access and participation. The facilitation of students with disabilities is justified through the notion that circumstances, such as disabilities, do not validate the loss of opportunity and talent of the individual (Dworkin, 1981). In the facilitation process the role of the institution is crucial, since students with disabilities have no control over the implementation of these processes and therefore cannot bear the responsibility concerning the allocation of adaptations. Consequently, one needs to strive to 'equality in the things for which we are responsible and difference in those of which we are not responsible for' (Philips, 2006, p. 21). The CRPD and the European Disability Strategy 2010-2020 see equality of opportunity in relation to education as removal of all barriers to access and participation in at all levels of education. Hereby, supporting lifelong learning and the maximization of talent of students with disabilities. Therefore, in a practical sense resolving barriers constitutes the ability for students with disabilities to engage their studies with equal opportunity as fellow students.

In regard to the second sub question it became evident that the facilities and guidelines currently in place at the University of Twente do not sufficiently include students with disabilities. The interviewed students faced difficulties in the following areas: the TEM structure, the arbitrary nature of adaptations, the university culture regarding disabilities and the level of empathy of their fellow students and the university staff. The policy upon which the educational structure TEM is leaves no room for individualization. Furthermore, the TEM policy states that studying is a full time occupation, which combined with the inability for individualized programs explicitly, excludes those that are unable to perform like a 'nominal' student. Furthermore, there is no mention of how students with disabilities are to function within TEM and how their right to education is safeguarded. In regard to policy concerning students with disabilities it is stated that no policy can be made due to the variety of disabilities and that the university has no data about the students with disabilities at the University of Twente. Moreover, the pass and fail criteria of TEM limits the time students with disabilities have to complete their first year. The lack of policy and data makes it difficult to analyse the state of affairs of the structure in place at the university, at the moment there is little documented of what could amount to formalised structural inclusion of students with disabilities in the policy.

The lack of clarity and structure seems to be in line with the perception of students with disabilities regarding the support framework of the University of Twente. These experiences relate to the third sub questions concerning the perception of the supportive structures and processes. The students' experiences related to a vague and unclear structure about who to contact and where to get information concerning their needs. Nevertheless, the structure and processes were unable to facilitate the needs of the students. Nevertheless, when students were faced with effects of impairments, adaptations were often a necessity for full participation. In attempts to acquire adaptations students with disabilities were confronted by the arbitrary nature of the processes required to gain access to adaptations and support. The difficulty lies in the fact that TEM does not allow for individual programs nor has any parts of the policy dedicated to how students with disabilities are to be facilitated. Nevertheless, the reality as such means that in practice such adaptations are necessary as students are entitled to them under law. The lack of guidelines concerning the facilitation of students' led to a situation in which adaptations were prone to procedural inequality and the arbitrary results of discretionary decision making by university staff. Nevertheless, the problems at the University of Twente were centred around the non-standard adaptations. Experiences with standardized adaptation such as extra time during examinations were generally positive. However, when impairments manifested that could not be facilitated by a standardized procedure students were again reliant on the arbitrary process and left students in a position in which they could not rely on the university to safeguard their rights. Furthermore, whilst tutors and module coordinators play a central role in the organization of the TEM structure they have no training or expertise on matters of facilitation or adaptations for students with disabilities. All of these factors create an environment in which outcomes were heavily dependent on the individual staff member and more often than not communication between different levels of staff was lacking. Students were ill informed concerning the possible support measures or adaptations, even when in contact with the study advisors who are supposed to inform students about their options. The Netherlands institute has ruled in several cases on the necessity for pro-active communication, transparent procedures which the student can check up on as well as full information to be provided to students with disabilities.

The fourth sub question required an analysis of current practices in relation with international and national legislations and guidelines. As mentioned before, the CRPD made full access to education and full participation in education for people with a disability a human right, creating the basis for nations and institutions to act upon. Furthermore, the European Disability Strategy focuses on the equal opportunities for students with disabilities and guarding them against discrimination on the basis of the disability. The current context and structure cannot guarantee a level playing field and create the possibility for procedural inequality. Both the lack of a level playing field for all students as well as procedural inequality can lead to a loss of student potential. Therefore, there is an imperative to improve upon the existing structures and processes to align them with the CRPD, the European Disability Strategy 2010-2020 and the Commission Maatstaf guideline with the current practices at the University of Twente. Apart from the structural matters, such as the educational model and adaptations, culture plays a significant role in the inclusion of students with disabilities. Culture and the attitudes associated with a certain culture can greatly increase the positive experiences of, and support for students with disabilities. However, several of the interviewed students experienced the opposite of a supportive and inclusive culture. Students with such experienced faced having to justify their presence of disability in group work, being confronted with prejudice by fellow students as well as university staff and having the added strain of having to disprove stereotypes. Such views coincide more with the medical model of disability, where a 'flaw' such as a disability is to be rehabilitated and where disability is solely the problem of the individual. Lingering conflicts between the medical model mind-set with social model policy often result in flawed implementation or execution of support measures. Within the current structure factors of exclusion are aggravated by the fact that no awareness or full inclusion programs or policy exist, which is also in line with the view that disability is solely the problem of the disabled student. In order to provide adequate guidance to students with disability there needs to be a climate and culture that is accepting of them, as of now the university is not able to provide such an environment and as such several students experienced exclusion and a lack of empathy.

In conclusion, it became evident that the University of Twente was not able to structurally offer students with disabilities the opportunities to fully access and participate in their educational program. The research revealed that students were often confronted with the arbitrary nature of decision making, communicative challenges, reactive organization of support, lack of transparency of the support procedures and a lack of knowledge about support options. Nevertheless, there are instances where students were facilitated and had a level playing field to maximize their potential but such cases were often due to an individual and arbitrary decision. Without knowledge of the current population of students with disabilities, the implementation of supporting structures, guidelines and awareness programs, an inclusive culture is hard to reach. Resulting in a situation in which the University of Twente has to update her current practices significantly in order to improve upon in granting students with disabilities equal access whilst facilitating them to fully participate.

6.2 RECOMMENDATIONS

In order to improve the ability of the University of Twente to provide equal opportunity to students with disabilities several recommendations are given. These recommendations follow from the gap between the current practice at the University of Twente and the requirements for institutions for higher educations as proposed by the CRPD, European Disability Strategy 2010-2020 and the guideline constructed by the Commission Maatstaf. Furthermore, it became evident that the University of Twente has no clear goals regarding inclusion, participation or facilitation of students with disabilities. These recommendations are to aid in the development of such goals.

- The creation of general guidelines

Without general policy to safeguard students' rights there are no checks and balances to counter the possible occurrence of discrimination. The creation of general policy and guidelines concerning disability would be the start of the process of structural, full inclusion of students with disabilities. Furthermore, the arbitrary differences in being granted adaptations are less likely to occur with adequate guidelines in place to secure equal treatment. Such guidelines need to include the Commission Maatstaf (2010) criteria of flexibility of learning routes as well as adaptation of testing methods. The development of general policy can be aided by involving students with disabilities in this process to gain insights in the population and to secure their needs. Actively including students is also supported by the European Disability Strategy 2010-2020.

- A proactive approach to student support

A shift in the way support is organized, from reactive to proactive, is required to change the paradigm and facilitate inclusion: when the university has knowledge of a disability it cannot simply wait for a student to act. The Netherlands Institute of Human Rights has ruled that knowledge of a disability and the challenges that come with it creates the imperative for action. To further such a process it would be invaluable to proactively inform and educate students with disabilities about the variety of options in place at the University of Twente. Proactive communication would also further the development of the Commission Maatstaf criteria of information services. For the University of Twente this would mean that the support structure and framework would need to be proactive, transparency, known to the student and ruled by objective guidelines rather than the arbitrary nature of current decision making.

- Moving towards an inclusive culture

To move towards an inclusive culture a shift in paradigms is required: attitudes of staff members and students in general need to change from exclusionary and limiting to inclusive and enabling. Such changes can be facilitated by staff training which focuses on changing the paradigm, from the current focus on what is not possible, towards thinking in solutions (Cnockaert et al., 2010).

Adopting staff training concerning students with disabilities is also in line with guidelines of Commission Maatstaf (2010) which prescribe student guidance and the expertise of supporting staff). Furthermore, a form of external action towards the general university population is necessary to increase awareness of the challenges disabled students face and to foster a culture of inclusion, as also proposed by the CRPD. Examples of such external action could be: awareness programs, policy or artefacts regarding the acceptance and inclusion of students with disabilities.

- Giving students with disabilities a voice through an ombudsman function

The group of students with disabilities is relatively small compared to the general university population. Their voices, challenges and problems can easily be marginalised by lack of registration and communication between the different staff members, studies and faculties. In order to ensure the representation of the group as well as the effective implementations of the above mentioned suggestions it is important to find create an ombudsman function. Such a function would entail: gathering experiences of barriers, safeguarding continuity and representing the group at all levels of university decision making.

6.3 DISCUSSION

When the findings of this study are compared with the prior research on the inclusion of students with disabilities it becomes evident the barriers faced by the students are similar in configuration. However, there is one key distinction: the lack of structural inclusion. Where Cnockaert et al. (2010) found that usually there is a form of structural inclusion present at the institution that is enabling; there is little structural inclusion of students with disabilities at the University of Twente. Furthermore, the current body of existing policy has several items that are exclusionary rather than inclusionary in nature. Furthermore, there is a theoretical consistency between the key findings of the study: the lack of structure and guidelines would logically lead to problems in the application of adaptations since staff has no basis for their decision making in policy. A similar situation arises when looking at the barriers to cultural inclusion. When disability is seen as a problem of the individual in policy and practice it would be fitting for the personal interactions to be in the same vein (Borland & James, 1999).

The interesting finding of the study is the arbitrary nature of institutional behaviour in the absence of structure, which led to the distinct possibility for unequal treatment and discrimination of the basis of a disability. Most other studies have been at institutions where there was a structure in place concerning the implementation and practice of policy concerning studying with a disability and were not confronted with the impact in individual staff members could have by use of discretionary power. This brings about an additional layer in the theory of the inclusion of students with disabilities as this study found that the lack of structural policy for the facilitation of adaptations can lead to a situation in which the burden placed on the students with disabilities is heavily increased, apart from the challenges and barriers explored by previous literature.

Moreover, this research has shed light on various experiences of students with disabilities in regard to their equality of opportunity and the nature of the impairments that manifested during their studies. Concerning the theory of equality of opportunity, the notion of group characteristics defining opportunity holds true in part as students had several similar group characteristics, yet were varied in the nature of their limitations (Roemer, 1998). As a group students with disabilities were often at a disadvantage concerning their opportunities as well as specifically disadvantaged through the circumstances of the individual, akin to the notion of equality of opportunity as posed by Mason (2000). Another challenge is what to do with the theory when new circumstances or new group characteristics are the deciding factors in equality of opportunity? While the students were a part of a group of students with disabilities, they were often not impaired by their disability but by the arbitrary nature of the discretionary power at various levels of the institution and were often confronted with an assumption of normality regarding health.

Related to this notion was the finding that there was variance between the different departments in their handling of students with disabilities, akin to the research of Shevlin, Kenny & McNeela, 2004). Consequently, the level of luck in the institutional organization was often decisive in whether or not a drop in opportunity would occur for students with disabilities. If we are to hold close to the statement of 'equality in the things for which we are responsible and difference in those of which we are not responsible for' (Philips, 2006, p. 21) it is clear that luck or assumptions of normality by the institution are not an aspects one can reasonably be held accountable for. Nevertheless, luck thrived as a deciding factor in the practices at the University of Twente; even when it should not be as it is not a just differentiator nor can the individual influence it. Furthermore, the presence of an assumption of normality and the absence of a structure safeguarding a minimum level playing field relegates those who are not able to comply to chance. To move the theory forward it seems to be of key importance to investigate an assumption of individuality instead of normality in cases of people with a disability: including of one's specific circumstances whilst not marginalizing type characteristics. Rethinking what is meant by health and functioning within society could lead towards a more individualized approach that respects the differences of individuals with regard to circumstances, effort and type.

Nonetheless, there were some limitations encountered during the execution of the research. Foremost, the number of interviewees could be improved. There were difficulties with finding participants who were suitable for participating in the study on the basis of theoretical representation as the population of students with disabilities was small, not all students with disabilities were known and the disabilities present were heavily skewed towards dyslexia, AD(H)D and/or autism. Furthermore, some students responded that they would like to join the study but that they were too busy due to the full schedule of TEM. To gain further knowledge on the inclusion of student with disabilities research could benefit from a study with a longitudinal approach to confirm findings and student experiences over longer periods of time. Furthermore, a comparative design would add to the literature by researching multiple institutions: adding to the generalizability of outcomes and creating the possibility for contrasting and comparing data. Another option would be to explore the topic from a staff or institutional point of view rather than the student point of view. Staff knowledge and institutional structure and policy are key components of the concept and the outcome of student experiences, analysing such views would make for a worthwhile addition to the literature.

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APPENDIX I INTERVIEW MODEL

The interview model is a guideline to cover the most of the theoretical framework as well as the national and international guidelines. Nevertheless, when the interviewee student indicates another subject of note the strength of the semi-structured interview is to be able to engage with the interviewee on such matters.

- Choice of college/course
 - Asking about the behind the original choices for enrolment
 - Whether disability was taken into account
 - Previous knowledge concerning facilities
 - Visited open day for students with disabilities or not
- Assistive provisions/practice
 - Does the student feel that he or she can fully access his or her studies: lectures, materials, examination forms, access and adaptation
 - Does the student feel that he or she can fully participate in his or her studies: lectures, group work, materials, examination forms
 - Are there adaptations in place: which and what are the experiences
 - Adaptations such as individualized programs, adaptations concerning testing or examinations, support systems
 - What are the experiences with the TEM structure: deadlines, group work, roster scheduling
- Assistive technology
 - Is the student informed about the options of technological assistance
 - Does the student use technological support systems and if so what are the experiences with technological support systems
 - What are the experiences with the library (systems)
 - Does the student experiences added financial burden due to disability
- College experiences
 - What are the experiences in your social life concerning interactions with for example flat mates or friends
 - What are the experiences with fellow students concerning study related interactions in for example group projects
 - What are the experiences with teachers and professors in disability related interactions, for example when disclosing your disability or discussing possible challenges.
 - What are the experiences with university staff in disability related interactions, for example in meetings with the study advisor or discussing adaptations
- Other

	Category	Code instruction
1	Choice of college and or courses	The category of choice of college investigates the rationale behind students' choices in enrolling for the University of Twente as well as their specific study. The scope includes knowledge of facilities, preference for a certain program, attendance to the special introduction for students with disabilities and their overall experiences in making the choice for the University of Twente.
2	Assistive provisions & practice	Assistive provisions and practice focusses on the ability of a student to access and participate in his or her study. Related to the access and participation are the possible adaptations and university provisions needed to make that possible. Scope includes all statements made that can hinder access, participation, the adaptations made or not made as well as the provisions that were or were not offered.
2.1	Access	Statements relating to experiences regarding the level of, and ability to enter, engage or otherwise access any matter related to their college study or courses
2.2	Adaptation	Statements made in relation to experienced level of adaptations made or not made for the student in order for him or her to be able to access and participate in university life
2.3	Participation	Statements made in relation to the level of participation the student experiences in ability to the ability to (fully) participate in their studies
2.4	University provisions	Statements relating to the provisions offered by the university in financial, technical or otherwise supportive aspects as experienced by the student.
3	Assistive technology	Assistive technology can be essential to the participation of students with disabilities and was included by Holloway who in her research found the category lacking clarity and direction without the addition of several subcategories, namely: library systems, technological support systems and financial costs.
3.1	Library systems	Statements relating to the ability to use and or access the library and its systems
3.2	Technological support systems	Statements regarding the use of technological support systems.
3.4	Financial costs	Statements made regarding extra financial costs incurred due to the

		disability of the student.
4.0	College experiences	The category of college experience focusses on the experiences of students with disabilities: to what extent students with disabilities feel supported by their peers, fellow students, teachers and other university staff? The aim is to provide insights in the general awareness at the university and the manifestation of an impairment in the life of the students.
4.1	Social life	Statements relating to the experiences in a student's social life: with friends, roommates and in daily life.
4.2	Student support	Statements relating to the experiences in a students' relation with his fellow students during study related interactions.
4.3	Teacher support	Statements relating to the experiences in a students' relation with teachers or university staff during study related interactions.
4.4	General awareness	The general level awareness experienced by the student.
5	Other	Important statements regarding the experiences of students with disabilities that cannot be placed under the previous categories.