MICRO-VARIATION IN MULTILINGUAL ACQUISITION & ATTRITION SITUATIONS (MiMS)

1. INTRODUCTION AND RELEVANCE TO THE CALL FOR PROPOSALS

Due to the immense complexity of language, which is a source of frustration to anyone who has attempted to learn a foreign language in adulthood, it seems to be a miracle that any typically-developing 3-year-old, in the words of Steven Pinker (1994: 276), 'is a grammatical genius - master of most constructions, obeying rules [...], respecting language universals, erring in sensible adultlike ways, and avoiding many kinds of errors altogether.' The task of language acquisition becomes even more impressive in the perspective of the considerable variation that children are exposed to in the linguistic input, especially in multilingual situations.

Children clearly learn language from the ambient input, but not from input alone. One of the main questions in theoretical linguistics and language acquisition is how much is provided by an innate endowment and how much must be learned from the primary linguistic data. The present project addresses this central issue within a new approach to language acquisition and attrition, the **micro-cue model (MCM)** that the PI has developed in a number of publications in recent years (e.g. Westergaard 2009a, 2014) based on data from monolingual acquisition. The MiMS project will extend this theoretical approach to multilingual situations, and new data will be collected from **several populations of bi- and multilingual children and adults,** e.g. German-Russian bilingual children, Norwegian-American heritage speakers, and bilingual children learning English as an L3. The focus is on (morpho-)syntactic micro-variation in **Norwegian, Russian, German and English**, related to **word order** and certain aspects of **nominal structure** (grammatical gender, determiner use). These languages and these syntactic constructions are chosen as they represent an interesting combination of challenges, both for children acquiring and adults maintaining these systems in multilingual contexts. According to the MCM, both acquisition and diachronic change take place in very small steps (e.g. Westergaard 2008, 2009d). By identifying the small steps in these processes (referred to as micro-cues), the project will increase our understanding of the human language faculty and the building blocks of language. It will also investigate the effect of more general factors such as complexity, frequency and economy in the acquisition and attrition processes. The MiMS project will thus make **important contributions to current research in the fields of language acquisition, multilingualism and theoretical linguistics**, providing new insights with potential to change the current dominance of the two opposing schools in the field, generativism and constructionism (cf. 2.1.2).

2. ASPECTS RELATING TO THE RESEARCH PROJECT

The MiMS project will build on research carried out by the acquisition group at Tromsø (UiT) in recent years, where the main focus has been on **variation in the input** in monolingual acquisition. The linguistic phenomena studied include micro-variation in word order and nominal structure. Findings from this research have led to the formulation of the MCM (cf. 2.1.2/2.1.3), a new theoretical approach to language acquisition that is increasingly gaining support (e.g. invitations for contributions, keynotes). **The MiMS project will extend this model to multilingual contexts,** focusing on similar linguistic phenomena. The main rationale is the following: While monolingual acquisition typically takes place too fast for linguists to be able to detect small steps in development, **bilingual acquisition is often slightly slower**. **Multilingual acquisition and attrition thus constitute exceptionally promising areas of research to identify micro-cues**. Furthermore, it is hypothesized that **cross-linguistic influence** will affect minor parts of the grammar, as according to recent work in second language acquisition theory (Amaral & Roeper 2014), **only small and simple rules can be transferred**.

2.1 BACKGROUND AND STATUS OF KNOWLEDGE

2.1.1 Morphosyntactic micro-variation

Micro-variation is abundant in the input to children, both in the clausal and the nominal domain. For example, it is well known that verb-second (V2) word order is not obligatory in Norwegian (e.g. Vangsnes 2005, Westergaard 2009b, Westergaard, Vangsnes & Lohndal in press), the variation being dependent on factors such as clause type, initial constituent and information structure. There is considerable micro-variation across dialects, but a common distinction in wh-questions is that V2 is required if the wh-element is more than one syllable (1), while both word orders are grammatical if the wh-element is monosyllabic (2a-b). In contexts where both word orders are allowed, the choice is dependent on information structure: V2 if the subject expresses new information (often a full DP, as in 2a), and non-V2 if the subject has been mentioned in previous discourse and conveys given information (typically a pronoun, as in 2b). This means that there cannot be one big V2 rule in the language, but **several smaller rules, specifying the linguistic context** in which this word order applies.

(1)   *Koffer **sir dem** det? / *Koffer **dem sir** det?*   V2/Non-V2
        why say they that / why they say that
        'Why are they saying that?'
(2)   a.   *kor   **er skoan**   hannes henne?* (INV, file Ole.17)   V2
               where are shoe.DEF/PL his   LOC
               'Where are his shoes?'
        b.   *kor   **dem er** henne?*   Non-V2
               where they are LOC
               'Where are they?'

An example of variation in the nominal domain may be taken from gender assignment in Russian, which is typically rule-governed, in that masculine nouns end in a consonant, feminine nouns in –*a* and neuter nouns in -*o* (e.g. Corbett 1991). Nevertheless, there are a number of exceptions to these rules; e.g. there is a class of nouns with semantic reference to males that have the typical feminine ending –*a*, such as *papa* 'daddy', but which nevertheless have masculine gender agreement. This means that Russian does not have just one rule for masculine gender assignment, but several smaller rules affecting different subclasses of nouns (Rodina & Westergaard 2012).

2.1.2 Language acquisition: two different traditions and a new model

Over the last two decades, the field of language acquisition has been dominated by two different theoretical camps, the generative and the constructionist approaches. One issue dividing the two is the question whether language acquisition is a result of cognitive principles specific to language (generativism) or of more general mechanisms underlying other cognitive processes (constructionism). In a constructionist perspective, language acquisition is initially item-based (specific words and word combinations learned as chunks), developing into more generalized frames or schemas with slots for particular word types and eventually into more abstract representations. This means that early linguistic production is concrete and centered around frequent word combinations, thus lacking syntactic structure and rules and not reflecting any abstract grammatical properties (see e.g. Tomasello 2003). Traditional generative approaches, on the other hand, seek to explain children's language acquisition in terms of cognitive mechanisms designed for language (Universal Grammar, UG). Variation across languages is accounted for by the existence of parameters; e.g. Chomsky (1981, 1986), Snyder & Lillo-Martin (2011). These are typically considered to be mental switches for aspects of grammar where languages differ, e.g. whether heads precede or follow their complements (head parameter), or whether verbs have to appear in second position (V2 parameter). The switches will be turned to the correct value as a result of exposure to a particular language early in the language acquisition process (Wexler 1999) or as a

result of competition between different settings (Yang 2002, 2010). This theory fares well with the general picture of early and effortless language acquisition that is generally found in child language studies. But more recent and more detailed work within the generative paradigm, focusing on cases where there is *variation in the input* (e.g. such as the V2 phenomena described in the previous section), has shown that there is hardly any syntactic overgeneralization to be found in child language data. Thus, it has recently been argued that **children are conservative learners**, rarely overgeneralizing rules from a few lexical items to a large category (e.g. Snyder 2007, Westergaard 2009a, b).

In order to account for these findings, Westergaard (2009a, b, 2014) has developed a new generative model of language acquisition, the MCM, according to which children do not set innate parameters, nor do they learn in an item-based fashion. Instead they are sensitive to fine syntactic distinctions in the input from early on. **In the acquisition process, children build small pieces of abstract syntactic structure, the micro-cues, which become part of their knowledge of a *specific* language.** Importantly, the *context* for a particular phenomenon (e.g. V2 or non-V2) needs to be specified as part of the cue. This captures the fact that children do not only need to acquire a specific word order, but also the contexts in which this word order is relevant. An example of a micro-cue is provided in (3), which (details aside) expresses that V2 in questions with monosyllabic wh-elements (heads) only takes place if the subject is new information, i.e. [+FOC], cf. example (2a).

(3)   Micro-cue for V2 in questions with monosyllabic wh-elements:

$$_{IntP}[\ _{Int'}[wh] \ _{TopP}[\ _{Top^o}[V\dots XP_{[+FOC]}\dots]]]$$

While the model takes seriously constructionist claims and recent findings, it also differs from con–structionism in that the **micro-cues are built up by linguistic categories, have syntactic structure, and reflect abstract grammatical processes.** And while item-based chunks may be present in children's grammars at a very early stage, abstract generalizations must be taking place during early language acquisition. The main research question for this model is therefore **what constitutes a relevant micro-cue in a child's grammar, i.e. a 'next step' in the acquisition process.** As these steps are necessarily small, not affecting large categories such as nouns or verbs but rather small-scale categories such as particular verb classes or specific wh-elements (e.g. only modals or only monosyllabic wh-words), this ensures that overgeneralizations will also be minor and reduce the need for 'unlearning'.

2.1.3 Previous research
Here I will only survey some previous acquisition research that is directly relevant to the MiMS project; thus mainly work by the PI and the Tromsø acquisition group on variation in the input. The most important research questions addressed are whether children have an early preference for one of the two (or more) options available in the input, and how early they master the often fine syntactic and information structural distinctions between them. The group's work spans a number of different constructions in various languages, including variable V2 (e.g. Westergaard 2009a), subject shift (e.g. Westergaard 2011), object shift (e.g. Anderssen, Bentzen & Rodina 2012), object scrambling (e.g. Mykhaylyk 2012), embedded clause word order (e.g. Westergaard & Bentzen 2007), ditransitive constructions (e.g. Anderssen, Rodina, Mykhaylyk & Fikkert 2014), word order inside the DP (e.g. Anderssen & Westergaard 2010) and grammatical gender (e.g. Rodina & Westergaard 2013a).

In virtually all cases, monolingual children have been found to behave in a target-like manner from early on. For example, Westergaard (2009a) finds that Norwegian children produce V2 and non-V2 word orders *in appropriate contexts*, cf. examples (1)-(2) above. The relatively few errors made are of a special type, as young children are found to occasionally produce an element in a lower position than what the target language requires, for example failure of verb movement, lack of subject or object shift, etc. In much recent work, e.g. Westergaard (2009a), it is argued that these errors are not due to a defect in children's internalized grammars, but to a general principle of economy, commonly seen in the pro-

cess of language acquisition. Similarly, Snyder (2007) shows that children's errors are generally restricted to errors of omission, while the number of commission errors is negligible.

Importantly, children's economic lack-of-movement errors are not always random. Occasionally it is possible to find that children make certain distinctions in their non-target-consistent production that are not reflected in the input. For example, some English-speaking children's lack of subject-auxiliary inversion is systematically related to certain wh-items, typically distinguishing between *what* and *where* on the one hand, which trigger inversion early and almost consistently, and *why* on the other, which triggers inversion only at a much later stage (e.g. de Villiers 1991, Thornton 2008). A significant distinction has also been found between *be* and auxiliaries in English children's wh-questions (e.g. Westergaard 2009b). A step-wise development of V2 has also been attested in child Swedish (Waldmann 2012). This means that children are *systematically* undergeneralizing, i.e. producing less movement than what is required in the target language (cf. also Roeper 1999:175).

The Tromsø acquisition group has recently expanded the research focus to bilingual acquisition and attrition. Most relevant to the MiMS project is the work on grammatical gender in Norwegian-Russian bilinguals in Norway (e.g. Rodina & Westergaard 2013b, under revision), showing that amount of input may be responsible for different types of incomplete acquisition/attrition in the gender system of Russian acquired in a heritage language situation, cf. findings in American-Russian heritage language (Polinsky 2008). Furthermore, Anderssen & Westergaard (2012, 2014) have considered Norwegian-English bilingual acquisition of possessives and double definiteness in Norwegian and corresponding attrition in data collected from Norwegian-American heritage speakers. In Norwegian possessives, there is word order variation, in that the possessor may either precede or follow the noun (e.g. *min bil* 'my car' vs. *bilen min* 'car.DEF my'), the latter being by far the more frequent word order in the input. Anderssen & Westergard (2012, 2014) show that there is a clear difference between the two populations, in that the children have a preference for the least complex option (the prenominal possessor construction), while the heritage speakers are overusing the more frequent option. They conclude that complexity is more important in acquisition, but no longer relevant for heritage speakers, as once acquired, a structure may lose its complexity. Frequency, on the other hand, is found to play a more important role in attrition. They also find evidence supporting Kupisch's (2013) recent claim that, while bilingual children are affected by cross-linguistic similarities, adult heritage speakers are more influenced by cross-linguistic *differences*, preferring the option that is most different from what is found in their other language.

In a recent paper, Amaral & Roeper (2014) argue for the existence of multiple grammars (MG) in child and adult second language acquisition. The main rationale behind the MG theory is the minimalistic principle *Avoid complex rules*, i.e. rules containing exceptions or rules that are contradictory. One reason why it is important to keep rules simple, according to Amaral & Roeper, is that they can then be utilized in a second language, while subparts of (complex) rules may not be transferred. In my view, this means that the size of rules is crucial, as also argued in e.g. Biberauer & Roberts (2012) and related work. The claim that rules have to be simple in order to be transferred to another language also makes interesting predictions, as data from L2 and L3 acquisition should provide evidence for the way rules are stored in speakers' L1 grammars. For example, if German learners of English only transfer part of the V2 rule into their second language (e.g. only the word order Verb-Adverb in declaratives but not Verb-Subject – *She drinks often wine*, but not *Often drinks she wine*), then this would indicate that V2 in German may in fact also be a collection of smaller rules. Thus, the MCM is an especially promising model for the analysis of learner data, and in ongoing work (Mykhaylyk, Mitrofanova, Rodina & Westergaard (2015, in progress) it challenges the three currently leading models of L3 acquisition, the Cumulative Enhancement Model (Flynn et al. 2004), the L2 Status Factor (Bardel & Falk 2012) and the Typological Primacy Model (Rothman 2011). This is done by exploring a new approach to L3 called the **Linguistic Proximity Model**, arguing that transfer may be from either the L1 or the L2 depending on abstract linguistic similarity at the level of individual (small-scale) constructions.

2.2 APPROACHES, HYPOTHESES AND CHOICE OF METHOD

2.2.1 Hypotheses

In the MiMS project, our research on monolinguals will be extended to multilingual situations with a focus on the **size of rules** and the **tension between conservatism and generalization in the acquisition and attrition process**. Based on the micro-cue model and previous research findings, we formulate the following hypotheses:

A. Assuming that bilinguals are equally sensitive to fine distinctions in syntax and information structure as monolinguals, and given that bilingual acquisition is typically somewhat slower than monolingual acquisition, we expect to find **more evidence for small steps (micro-cues)** in the acquisition process, i.e. systematic undergeneralization. We expect to find **similar steps in attrition** (but presumably not the same order, cf. Hypothesis B).
B. Given previous findings from monolinguals (e.g. Anderssen & Westergaard 2010), we expect **bilingual children to be sensitive to complexity** at an early stage of acquisition, as children should start out with the simplest and most economical options. Bilingual children should additionally be affected by **structural similarity** with the other language (cross-linguistic influence).
C. According to findings in Kupisch (2013) and Anderssen & Westergaard (forthcoming), we expect **heritage speakers to be more sensitive to frequency and cross-linguistic differences**.
D. When transfer occurs in bi- and multilingual situations, we expect the **rules that are transferred to be small and simple**, as argued by Amaral & Roeper (2014), i.e. not to reflect major parameters. Thus, we expect to find further evidence for micro-cues in language transfer contexts.

2.2.2 Languages and language combinations

In order to provide evidence supporting or rejecting these research hypotheses, the following languages will be investigated: **Norwegian, Russian, German and English**. These languages are chosen because their word order systems differ in relevant respects: For example, Norwegian and German are V2 languages (to different extents), while Russian is not and English has so-called residual V2 in questions. Thus, English and Russian are similar in that adverbs precede verbs in declaratives (e.g. *She always drinks wine*), a notoriously difficult word order for Norwegian and German learners of English (cf. e.g. Robertson & Sorace 1999, Westergaard 2003), while they typically do not have problems with other aspects of V2 (cf. Hypothesis D related to Amaral & Roeper's concept of *Avoid[ing] complex rules*). That is, these learners seem to be transferring part of the V2 rule. Furthermore, German is OV, while Norwegian and English are VO, and Russian allows both word orders, in that there is object scrambling. The four languages also differ in relevant respects in ditransitives, both with respect to what seems to be the basic word order as well as the kind of syntactic and information structural factors which are responsible for the word order variation.

There are also important differences between these languages with respect to grammatical gender. Russian, German and most dialects of Norwegian have a three-gender system, while some dialects only distinguish between two genders (common and neuter), and English has no gender at all. While gender in Russian is generally predictable from the morphophonological properties of the noun, gender assignment in Norwegian is opaque, and the German system can be placed in an intermediate position with respect to transparency. There are also differences between the languages concerning the morphological complexity of declension classes: German and Russian differ from the Scandinavian languages in that nouns are inflected for morphological case, and there is considerable syncretism in the paradigms. Furthermore, Russian has a very complex system of declension classes, setting it apart from the Germanic languages. For Norwegian, the status of the definite suffix is particularly interesting (as an expression of gender or simply a declension class marker), especially in relation to the question whether the feminine gender is in the process of being completely lost from the language.

2.2.3 Methodology

Dense corpora: In most existing corpora of child language, recordings have been made every 2-3 weeks, which is also the case for the main corpus collected in Tromsø, of three children aged 1;9-3;3 (Anderssen 2006). Given the speed of typical language acquisition, such corpora generally cannot provide detailed information about the developmental process. In order to document **step-wise development**, the micro-cue approach requires **collection of much denser corpora.** Recently, the Tromsø acquisition group has collected three small dense corpora of monolingual Norwegian children (10 recordings per child). The MiMS project will complement these by collecting two bilingual corpora with recordings twice a week (one in each language), one from a bilingual Norwegian-Russian child and one from a Norwegian-English child. We will use the LENA system for the recordings in the children's homes, thus minimizing the need for an investigator as well as interference in the families' everyday life. It is therefore realistic to collect data for 12 months (age approx. 2;0-3;0). The corpora will be transcribed using the CHAT/CLAN system.

Production experiments: The MiMS project will also collect experimental data, using some of the production experiments developed for the monolingual studies mentioned in section 2.1.3. Furthermore, some of the experiments will build on recent research on bilinguals in the BIC and NoRus projects (see PI's CV), using the methodology designed for the Rodina & Westergaard (2013b) study on gender acquisition. In these experiments, the children typically see a sequence of pictures on a computer screen and are prompted to produce a construction of the relevant kind, e.g. a gender form (*et rødt hus* 'a$_N$ red$_N$ house$_{(N)}$' or an object shift structure (*han liker den ikke* 'he likes it not').

Eyetracking: It is important to use different types of experiments to ensure the reliability of the results. The acquisition group has recently purchased an SMI eyetracker for the TroLL lab, and our production experiments will be complemented by (visual world) eyetracking. For the word order studies, our experiments will be based on the eyetracking methodology in Sekerina (2014) and for the gender study on Hopp (2012). In the latter type of experiment, participants are typically given an auditory stimulus (e.g. *Se, for et fint hus!* 'Look – what a nice house!') and shown four pictures on a computer screen, where either just one item (the target) or two items (the target and a distractor) correspond to the gender of the noun that is presented in the auditory stimulus. The eyetracker then records response time and measures looks to the target in order to determine whether the participant is sensitive to the gender information in the stimulus *before* the onset of the noun itself.

In order to assess the amount of input to individual bilinguals, we will use the Utrecht Bilingual Language Exposure Calculator (UBiLEC) (Unsworth 2013). As soon as the MiMS project is completed, the dense corpora will be donated to the CHILDES database, and the experimental material collected will be stored in the newly established publicly available TROLLing database at UiT Library.

2.2.4 Subprojects

	Work package	Methodology	Research focus	Participants	Researchers
1	Norwegian-Russian bilinguals	Dense corpus, Experiments (production, eyetracking)	*Grammatical gender* *Word order:* V2, object shift/scrambling	1 bilingual (age 2;0-3;0), 25 bilinguals (age 4-6), 25 Norwegian & 25 Russian controls	Post-doc I, Rodina. Rothman, Sekerina, Westergaard
2	German-Russian bilinguals	Experiments (production, eyetracking)	Same as WP1	25 bilinguals (age 4-6), 25 German controls	Post-doc I, Westergaard Kupisch, Rodina, Sekerina
3	Norwegian-English bilinguals	Dense corpus, NorAmDiaSyn corpus	*Grammatical gender* *Word order:* V2/inversion, S-Adv	1 bilingual (age 2:0-3:0) & previously collected corpora	Post-doc II, Rothman, Anderssen, Lohndal, Westergaard
4	English as an L3	Experiments (grammaticality judgements, production)	*Word order:* V2/inversion, S-Adv *Nominal structure:* Determiner use	25 Norwegian-Russian & 25 German-Russian bilinguals, 50 L2 (25 L1 Norwegian, 25 L1 German, age 10-12)	Post-docs I/II, Westergaard, Rothman, Rodina, Anderssen, Kupisch, Slabakova, Sekerina

WP1: Norwegian-Russian bilinguals   ***Leader: Researcher Yulia Rodina***

In addition to the dense corpus, WP1 will use the production experiments designed for the monolingual studies to investigate two word order phenomena in Norwegian-Russian bilinguals (V2, object shift/scrambling), as these are particularly interesting to compare in this language combination. For the gender study, WP1 will expand the experimental work used in Rodina & Westergaard (2013b, 2015) to include eyetracking, in order to investigate whether children who hardly ever produce a particular gender form, e.g. certain feminines in Norwegian or the opaque neuters in Russian, nevertheless are sensitive to these forms in processing. The monolingual Norwegian controls will be tested in Tromsø and the monolingual Russians in Ivanovo (as in our previous studies). WP1 will mainly be investigating Hypothesis A, to some extent also Hypothesis D.

WP2: German-Russian bilingual children and adults   ***Leader: Professor Tanja Kupisch***

This subproject will be carried out in Hamburg. German-Russian children and monolingual German controls will be investigated using the same experiments as in WP1 on word order and grammatical gender. The monolingual Russian controls are thus the same as in WP1. The experiments will also be carried out on Russian adult heritage speakers. All four hypotheses are relevant for WP2, especially A, B and C.

WP3: Norwegian-English bilinguals   ***Leader: Professor Merete Anderssen***

In addition to the dense corpus of a Norwegian-English bilingual child, this subproject will use data from Norwegian-American heritage speakers collected for the NorAmDiaSyn project at the University of Oslo, making direct comparisons between acquisition and attrition data on grammatical gender and two word order phenomena (V2/inversion, S-Adv). The data from the bilingual child corpus will be compared to English corpora in CHILDES and the recently collected Norwegian dense corpora mentioned above, while the Norwegian-American adult data will be compared to Norwegian dialect data in the Nordic Dialect Corpus (Johannessen et al. 2009). WP2 addresses Hypotheses B and C, to some extent also A and D.

WP4: English as an L3   ***Leader: Professor Marit Westergaard***

This subproject will investigate the L3 English acquired by Norwegian-Slavic and German-Slavic bilinguals. The focus will be on two word order phenomena (V2/inversion, S-Adv), where English parallels Slavic in one case and Norwegian/German in the other, as well as on Determiner use, a notoriously difficult property for Slavic learners. The L2 controls will be investigated in Tromsø, Hamburg and Ivanovo. In addition to considering the size of rules in the process of language transfer (Hypothesis D), this project will challenge the three dominant models in the field (cf. section 2.1.3). The project will also involve new and exciting theoretical work in collaboration with Roumyana Slabakova, who has recently proposed the Scalpel Model (Slabakova 2015), an independently developed approach to L3 acquisition that is built on similar theoretical foundation as the Linguistic Proximity Model mentioned above (Mykhaylyk, Mitrofanova, Rodina & Westergaard 2015, in progress).

3. PROJECT PLAN, PROJECT MANAGEMENT, ORGANISATION AND COOPERATION

The project will be managed by the Faculty of Humanities, Social Sciences and Education and the Center for Advanced Study in Theoretical Linguistics (CASTL), a Norwegian Center of Excellence funded by the Research Council of Norway (RCN) 2003-2012. The PI of MiMS is **Professor Marit Westergaard**, who is also the leader of the UiT Language Acquisition Group, an active and productive team conducting cutting-edge research on many aspects of language acquisition. The group runs the TROmsø Language acquisition Lab (TroLL) and works with both corpora and experimental data on mono- and bilingual acquisition of a range of languages, including Norwegian, English, Russian, Ukrainian, Croatian, Portuguese (BP and EP) and North Sami. The present project will thus fit into the current research carried out at CASTL and at the same time expand the focus to multilingual data and

new experimental techniques. Members of the group regularly publish in international journals such as *Journal of Child Language, Language Acquisition, Second Language Research, Lingua, Journal of Comparative Germanic Linguistics,* etc., and present their work at the most important conferences in the field, e.g. GALA, ISB, BUCLD and IASCL.

The project will start on January 1, 2016 and be organized according to the following time schedule:

YEAR	2016				2017				2018				2019			
QUARTER	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Hiring, Permissions, Research design, Recruitment, etc.	▓	▓		▓						▓						
Data manager 50%			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Professor II (Kupisch)			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Post-docs I/II			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Dense corpora			▓	▓	▓	▓										
Experiments WP1, Tromsø						▓										
Experiments WP1, Russia							▓									
Experiments WP2, Germany							▓	▓								
Experiments WP4, Tromsø											▓					
Experiments WP4, Germany																
Conference attendance						▓				▓				▓		
Article publications										▓						
Workshop											▓					
Special issue of journal																▓
Outreach			▓				▓		▓						▓	

Local cooperation: The PI will cooperate with colleagues **Professor Jason Rothman** and **Professor Merete Anderssen**. Rothman is Professor at the *Center for Literacy and Multilingualism* (CeLM) at the University of Reading and he also holds a Professor II position (20%) at UiT. He is a world-leading researcher in the fields of heritage language and L3 acquisition with an exceptionally strong publication profile in recent years, and he will thus add outstanding expertise to the MiMS project. Anderssen has extensive expertise on bilingualism and the acquisition of word order and nominal structure in Norwegian and English, languages relevant to WP3 and WP4. The PI currently (co-)supervises six PhD students, five at CASTL and one at Potsdam Research Institute on Multilingualism (PRIM), and these may participate in the project to varying degrees.

National cooperation: The PI already collaborates with the University of Oslo (UiO) through her affiliation with the newly established CoE at UiO, *Multilingualism in Society across the Lifespan* (MultiLing), where she works most closely with **Post-doc Yulia Rodina.** Rodina has extensive experience on the acquisition of gender and word order in both monolingual and bilingual populations, with a main focus on Russian and Norwegian. Westergaard is also heavily involved in the NorAmDiaSyn project, which has collected the corpus to be used in WP3. Furthermore, she is closely connected with the group of linguists at the Norwegian University of Science and Technology (NTNU) in Trondheim, especially **Professor Terje Lohndal,** Norway's youngest professor and a brilliant theoretical syntactician with an interest in multilingualism and heritage languages, e.g. Lohndal & Åfarli (2014). Westergaard and Lohndal are currently working on several joint grant proposals, most notably a Center of Excellence for the next call of the RCN which is entitled *Acquisition, Variation & Attrition (AcqVA): Development and Stability of Mental Grammars.* In this connection, Westergaard and Lohndal will be hired in Professor II positions at NTNU and UiT respectively, from August 2015.

International cooperation: The PI has an extensive international network. For example, she is an associated member of the newly established *Centre for Literacy and Multilingualism* (CeLM), University of Reading, which aspires to be one of the leading research communities on multilingualism in Europe. She is also involved in the project *From signal to grammar in Cree* (funded by The Social Sciences and Humanities Research Council of Canada 2013-2018), studying the acquisition of word order and grammatical gender in North East Cree. The work on Cree will complement the work in the MiMS project

in interesting ways. In addition to Professor Jason Rothman mentioned above, the MiMS project will have three international partners: **Professor Tanja Kupisch** (Universität Konstanz), **Professor Roumyana Slabakova** (Southampton), and **Professor Irina Sekerina** (CUNY). Kupisch has extensive expertise on mono- and bilingual first language acquisition as well as adult bilingualism and heritage languages. Slabakova is a world-leading expert on L2 acquisition. Sekerina's main area of expertise is experimental psycholinguistics and English-Russian bilingual heritage speakers. She is also a leading specialist on the Visual World Eye-tracking Paradigm. Sekerina has recently been awarded a Fulbright grant to spend the spring of 2016 doing research in Norway.

BUDGET (SEE APPLICATION FORM)

The budget will include a contribution in terms of research time for the PI (100%) and all involved partners. We ask for support from the RCN for two post-doctoral research fellows/researchers for two and a half years, one with (near-)native proficiency of Russian, the other with (near-)native proficiency of Norwegian. Furthermore, Professor Tanja Kupisch (Konstanz) will be hired as a Prof II (20% position) for two years. The budget also provides a 50% position for 3 years for a data manager, as the project has a strong empirical focus. The data manager will be responsible for carrying out experiments, organizing appointments with participants, collecting and transcribing data, carrying out statistical analyses, etc. The project will also include partial buyout from teaching responsibilities for the PI (20%). Finally, the budget includes management costs to cover research assistance, travel expenses (fieldwork and conferences) and a workshop.

4. KEY PERSPECTIVES AND COMPLIANCE WITH STRATEGIC DOCUMENTS

4.1 RELEVANCE AND BENEFIT TO SOCIETY

Norway is an increasingly multilingual society, and according to Statistics Norway, approximately 23% of all school children have some kind of immigrant background. A recent government white paper (NOU 2010:7 *Mangfold og Mestring*) has shown that research-based knowledge about this situation is sparse and expressed that there is **a great need for research on language acquisition and multilingualism in this country**. The MiMS project will thus provide new knowledge in a field of importance to an increasing number of people, e.g. public administrators, teachers, politicians, as well as multilingual adults and children. The results of the MiMS project are also expected to have an **impact on pedagogical issues**, especially WP4, as this is the first English L3 research focusing on the Norwegian situation. Furthermore, the acquisition group is becoming increasingly active in communicating **research-based information to a general audience**, through popularized articles and the service *Flere språk til flere* (FSF)*,* a branch of *Bilingualism Matters* directed by Professor Antonella Sorace, University of Edinburgh. FSF was established in 2011, and has become a great success, as members of the acquisition group are frequently invited to give popularized presentations all over Norway.

4.2 ENVIRONMENTAL IMPACT

The project will have no major effects (negative or positive) on the external environment. Communication between partners will as far as possible be electronic.

4.3 ETHICAL PERSPECTIVES

The research in the MiMS project will continue in the tradition of the work that has already been carried out at UiT in connection with data collection from young children in the TroLL lab. The ethical issues of this work are in compliance with the requirements of *Norsk Samfunnsvitenskapelig Datatjeneste* (Norwegian Social Science Data Services). Thus, the project will adhere to the same strict ethical standards, and where necessary, new and extended permissions will be applied for. All adults and the parents of the child participants are provided with clear information in advance, and consent forms are signed before the research starts. The only personal data collected are non-sensitive, i.e. age, gender, and language/dialect background. Nevertheless, all participants are anonymized, and the coding

that links language data to actual speakers is kept on a password-protected server. The child language data collection is always carried out by two researchers and/or a researcher and a parent. Both the corpus collection and the experimental studies are designed as games, and the children are normally quite eager to participate. A child is never forced or coerced, and an experiment is immediately discontinued if the child does not want to complete it. All parents are informed that they may withdraw from the research project at any time and require that the already collected data be removed from the database.

4.4 GENDER ISSUES (RECRUITMENT OF WOMEN, GENDER BALANCE AND GENDER PERSPECTIVES)

Linguistics, especially language acquisition, is a field with a majority of women, and this project may thus contribute to young and presumably female researchers qualifying for permanent positions in academia. The MiMS project involves both male and female researchers, and the experiments will be carried out on participants of both genders.

5. DISSEMINATION AND COMMUNICATION OF RESULTS

5.1 DISSEMINATION PLAN / 5.2 COMMUNICATION WITH USERS (SEE APPLICATION FORM & 4.1 ABOVE)

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