E1. Reciprocals across languages

E2. Project description and background

Reciprocity lies at the root of social organization and ethics. Confucius, asked whether any single word would serve as a prescription for all one’s life, proposed ‘reciprocity’. Social reasoning about reciprocity, however, is underpinned by the interpretations and ambiguities that one’s language allows: should statements like ‘guests should repay each other’s hospitality’ or ‘different generations should help each other’, for example, be interpreted as direct bilateral reciprocity (direct repayment of hospitality to the same guest, or direct helping of the generation that helped you) or asymmetric reciprocity (A repays the hospitality they have received from B to some other guest, C; parents help their children, who help their children in turn). Languages differ both in the interpretations they allow for such expressions, and in the way the cultures they are spoken in favour the development of particular meanings.

Recent discussions of the evolution of social intelligence, and of language itself in our primate forebears, also place reciprocity at centre stage (see e.g. De Waal 2001, Calvin & Bickerton 2000). But if theories of cognitive evolution are to draw on assumed reasoning about reciprocity, we must ask what expressive possibilities underlie this, and it is important not to restrict these models to simplistic notions drawn simply from English or ‘Standard Average European’: the wide variety of ways modern languages express reciprocity provides us with a rich resource for exploring alternative conceptualizations of this notion.

This project, then, will examine how languages express this crucial conceptual domain, drawing on materials from a diverse sample of languages around the world, with a focus on the insights that can be drawn from the indigenous languages of Australia and the region through on-site interviews with speakers of little-known languages in Northern Australia, Papua New Guinea, Malaysia and India. It will combine a typological survey of published work on a broad sample of languages world-wide, with detailed original fieldwork on a smaller sample of languages of the region, and an attention to the different semantic interpretations of reciprocal constructions from languages drawn from different structural types and cultural settings.

An important and fruitful approach to typology – the branch of linguistics concerned with systematizing the diversity found in the world’s languages – is to examine how different languages express particular semantic domains, such as time or space. This approach treats languages as natural experiments in how speakers from different cultures can approach the problem of talking about these domains, and of how individual speaker choices, over time, result in language-specific structures for expressing meaning. There is vigorous on-going debate in the field about how far particular semantic categories are (a) hard-wired, cognitively universal and culture-independent (b) totally plastic and open to a range of culturally-shaped options (c) amenable to cultural shaping of defined parameters within a basically universal schema. A parallel debate concerns the issue of how far particular grammatical features of individual languages favour the expression of particular types of meaning. The five thousand languages of the world are our best resource in addressing this question, but most are undescribed or underdescribed and under imminent threat of extinction.

Semantically-based typologies have largely concentrated on space, time and on logical relations like quantification. One innovation of the current proposal will be to extend semantically-based typology into a particular realm of social intelligence, the set of concepts and operations which underlies reasoning about social agents, each of whom has their own model of other minds (see Goody 1995): some of the ways languages extend reciprocal expressions are motivated by speakers’ models of the intentions of others, and the social relations they contract, and are not based simply on their observed actions.
Recent international work on reciprocals falls into two main categories. As elsewhere in linguistics, progress has been held up by a relative lack of cross-fertilization between generative and formal-semantic approaches on the one hand, and typological and cognitive/functionalist approaches on the other. One aim of the current project will be to move the field forward by synthesizing these currents.

Within the generative and formal semantic traditions, the focus has been on ambiguities and detailed semantic differences between complex examples, usually in English. There have been two main contributions of this approach.

Firstly, it has identified many ambiguities that can result from the interaction of reciprocals with complex grammatical constructions. Consider the sentence ‘John and Mary think they like each other’ (Higginbotham 1980): this is ambiguous between the reading ‘John and Mary think they (that is, John and Mary) like each other’ and the reading ‘John thinks that he likes Mary and Mary thinks that she likes John’.

The strength of the generative approach is that it has drawn attention to subtle ambiguities of this nature. Its major weakness is its narrow empirical base, predominantly English. There is already on-going debate within the generative approach (Heim, Lasnik & May 1994, Dalrymple et al 1994) about whether these properties of reciprocals follow from particular facts of English structure, or whether they are universal, following from the semantics of reciprocal constructions whatever the language’s structure. This debate is likely to remain unresolved until a much larger set of languages is employed, so as to properly explore the effects of language structure as the independent variable. The current project aims to expand the scope of this debate through detailed research into the interaction of reciprocals and complex constructions in Australian languages, to be undertaken in conjunction with the second PI’s current project on subordinate clauses in Australian Aboriginal languages.

A second achievement of generative work has been to map the many semantic subtypes of reciprocals. Two fine contributions in this vein have been Langendoen (1982) and Dalrymple, Mchombo & Peters (1998), which I draw on in the diagrams below.

Again, however, an approach based just on English (perhaps supplemented with a few familiar European languages) is unable to answer the question of whether these different meanings form a natural class, as indicated by the use of the reciprocal for all six types in English, or whether we are elevating accidental facts about English to the status of general truths about all languages (or about ‘Universal Grammar’). In fact, we find that other languages distinguish these meanings by using
distinct grammatical constructions. The Australian language Gooniyandi (McGregor 1996) uses a
distinct construction for pairwise reciprocals, e.g. ngaboo-ngaboo-langi ‘group who are pairwise
related by father-child relationships’; the Australian language Bininj Gun-wok (Evans forthcoming)
has distinct forms for strong and asymmetric kinship reciprocals. Preliminary work by Zeshan on
Indo-Pakistani sign language suggests it distinguishes each of the above subtypes, through the use
of different classifiers and alternating sign movements, and has no overall sign to cover the full
class of concepts spanned by English ‘each other’.

A second question that one cannot answer without bringing in evidence from a range of
languages is why some of these meanings seem to be restricted to certain expressions, which,
moreover, vary from language to language. In English one can use each other with some chained
situations, such as students following each other onto a dais, but not with certain situations that
allow reciprocal encoding in other languages: in Manam (Lichtenberk 1985) and Kayardild (Evans
forthcoming a:281) reciprocals can be used with situations like successive generations of father-son or
teacher-pupil relationships. English does not allow this: an attempt to translate the Kayardild
sentence ngada marmirrayarrad, marmirrantha mimathutharranth literally with a reciprocal, as ‘I
am a good craftsman, because a good craftsman fathered each other’ is incoherent – instead we
need a translation like ‘because a good craftsman fathered me, and a good craftsman fathered him
in turn’ or ‘before him in turn’.

A third question not well addressed within the generative or formal semantic approaches
has to do with the contributions of non-truth-conditional factors of construal, i.e. of how the
speaker frames the event. Consider the English sentence ‘John and Mary chased each other
down the street’. For most English speakers, if one is discussing two children in a game, this can be used
of two distinct situations: (a) John and Mary are taking it in turns to chase, so that at one moment J
is chasing M and at another M is chasing J (strong reciprocal) (b) One child is always chasing the
other (asymmetric reciprocal). However, if Mary is a policeman and John a thief, most speakers
only accept the sentence if condition (a) holds, rejecting the asymmetric interpretation. It appears
this discrepancy in judgments comes not from the objective description of the situation, but its
construal in terms of reciprocal intentional involvement in a shared activity (a game) in the first
case.

Chained and asymmetrical extensions of reciprocal constructions appear to be particularly
frequent in representing certain types of co-operative social involvement, yet these factors have
generally been neglected in the existing literature, in favour of purely logic-based representations
ignoring social construal. Our project will compare, as exhaustively as possible, the sets of
expressions that permit chained and asymmetrical uses of the reciprocal across a broad range of
languages.

The need to address the dual questions of cross-linguistic variation and construal has lain at
the heart of functionalist, cognitive and typological approaches. These have drawn from a much
wider set of languages, begun to map out alternative formal means of representing reciprocals, and
been especially concerned with patterns of polysemy between reciprocal markers and others, such
as the sharing form with the reflexive (as in French ils se rasent ‘they shave themselves / each
other’), the comitative or sociative, the habitual, or with nouns like ‘head’ or ‘body’ (Frajzyngier &
Curl 1999). They have also paid attention to the subtle differences in meaning between alternative
expressions. In English, for example, as in many other languages, there is a class of ‘naturally
reciprocal’ verbs which allow a reciprocal interpretation even without overt marking, e.g. they
kissed (each other), they quarrelled (with each other). Kemmer (1993) has shown that the bare
verbs can only be used with stereotyped situations with low distinguishability of sub-events: John
and Mary kissed could not be used, for example, of the situation described (with an overt reciprocal) by John and Mary kissed each other on the hand.

Treatments by Kemmer (1993) and Lichtenberk (1999) pursue such questions cross-linguistically, drawing on a good range of languages; Gaby (2001) examines a range of Australian languages. However, these works are mostly restricted to secondary data (perhaps supplemented by extra information on one or two languages), and do not systematically compare an articulated set of meanings across the languages of the sample. Moreover, it is rare for them to tackle the full set of semantic issues dealt with in the generative tradition – typically because the sources they are based on do not themselves discuss the issues in this level of detail. Finally, although they describe a range of grammatical constructions for expressing reciprocals in different languages, they do not attempt a comprehensive survey of the grammatical possibilities, so that the contributions of structure to interpretation cannot be examined fully.

The only reasonably comprehensive survey of grammatical structures encoding reciprocals of which I am aware is Nedjalkov (1991), which includes well-analysed material for around twenty languages, focussing on Europe, the Caucasus and Siberia. Even this survey, however, has serious shortcomings. For example, a consequence of its restricted sample is that it does not include languages like Iwaidja and Maung where reciprocals are expressed with a structure like ‘he-her-hit and she.in.turn’ for ‘they hit each other’, meaning that there is no structural point at which the participant list is merged as a single conjoint argument. Nor does it include languages like Kuuk Thaayorre, where the subjects of reciprocalized verbs remain in the ergative even though there is no overt object NP, or like Wambaya (Nordlinger 1998a), which exhibits a tension between transitive encoding strategies on the verbal auxiliary and intransitive coding strategies in the case system, or Dalabon (Evans, field notes) which also has such a tension, though it only surfaces with three-place verbs like ‘give’. The implications of such structures for reciprocal semantics and morphosyntax have yet to be explored.

A further question that has not been properly explored is the role of cultural models in licensing extensions of reciprocals in particular contexts. Here are two examples from Australian languages. In Marthuthunira (Dench 1987), the verb suffix -yarri- not only includes both collective (‘we are eating together’) and reciprocal readings (‘we are hitting each other’), it can also apply to actions involving persons in ‘harmonic’ (even-numbered) generations with respect to one another. In Kayardild (Evans 1995a) the reciprocal can be extended to actions between sets of humans and animals which are their totems. Thus bilda diyanjutha, using the reciprocal form of diyaja ‘eat’, would normally be understood to mean ‘they are eating each other’ in a literal sense, but in the appropriate context can denote a person’s illicit consumption of their totemic fish. Semantic extensions like this build on culture-specific assumptions about the types of reciprocity, identity and collectivity assertable of different social categories, both among humans and between humans and the natural world. The project will extend our knowledge of such constructions, and investigate them in further detail for selected languages.

The two CIs are uniquely well-placed to push the debate on reciprocals to a new level. Each combines substantial fieldwork experience on languages of Australia and the region, an engagement with central theoretical issues in syntax and semantics, and experience in broader typological work (see §B10.1). By synthesising these approaches, that have until now tended to remain mutually quarantined, we hope to be able to see the ‘whole elephant’.
particularly in the case of endangered speech communities. The first goal of the project, then, is to make available rich and subtle data on reciprocals for a dozen under-described languages of the region. The field protocols we develop will extend the task of documenting under-described languages into areas of meaning that have to date received only relatively cursory treatments.

The second goal is to enrich our understanding of reciprocals through the new insights that will arise from three sorts of cross-fertilization: between languages presenting undescribed phenomena and general linguistic theory, between different areal traditions, each with their own descriptive and conceptual vocabulary, and between different approaches within linguistics that frequently remain insulated from one another but can be brought together in the open intellectual environment the project will be conducted in.

A final goal, tying back to the broader questions raised at the beginning of this proposal, will be to examine, within the words and languages of the people who discuss them, a range of notions of reciprocity, as distilled into various grammatical patterns by generations of speakers in different societies, that will begin to do justice to the diversity of cultures found in our region.

E4. Approach

The project will employ several types of data-gathering. Field-based primary research on little-known languages will be supplemented by library research drawing on grammars, dictionaries and texts of on documented languages, and targeted sessions with speakers, in Melbourne, of languages identified in the literature as having interesting properties, with further contributions coming from other scholars who will become aware of our research through the web site:

Although a questionnaire and linked data-base will form the framework that all these investigations will follow, and will spell out the maximal set of questions and issues that the team is dealing with at any one point, it will not be totally fixed from the beginning of the project; rather, an initial framework will be drawn up in the first half-year, and this will be cumulatively modified over the lifetime of the project. This is because, as Thomas Stolz (1996) has aptly put it, typological work in linguistics exhibits a ‘snowball effect’ as newly-investigated languages throw up new questions which should be tried out on all the other languages under investigation. The questionnaire will thus evolve over the lifetime of the project; wherever possible, new questions will be checked back against languages that have already been covered.

The fieldwork component lies at the core of the project, as it will bring to light totally new data from fragile speech communities. By working with speakers through a range of methods, such as direct elicitation, participant observation, and collection and transcription of texts, the investigators will record, transcribe and translate material which is then available for posterity.
special new protocol for gaining targetted naturalistic data on reciprocals, employing video, conversation-prompting game tasks and other material stimuli to avoid the need for direct translation, will be developed in conjunction with the Event Structure Group of the Max Planck Institute for Psycholinguistics in Nijmegen, with whom both PIs have long-standing contacts. These protocols will be administered, at a variety of field sites around the world, by researchers based in Nijmegen in addition to those operating from Melbourne, extending the coverage of the project.

Because reciprocals involve complex grammar and subtle semantic judgments, reliable data can only be obtained once the field linguist already has a good mastery of the language and familiarity with the speech community. The languages and investigators selected here all meet this requirement; in the case of the Ph.D. students, the relevant field trip for investigating reciprocals will be timed for a point where they have already worked out detailed analyses of the rest of the language and gained a reasonable level of fluency.

In addition to the above methods, which aim at producing new linguistic data on the fourteen core underdescribed languages, classical typological survey methods will be employed: excerpting relevant material from published grammars, dictionaries and text collections. The goals of this arm of the research will be (a) to get a more cross-linguistically balanced sample and (b) to pick up questions and phenomena that have already been reported on for other languages, which will then feed into the set of questions asked by the field investigators. Because grammatical descriptions of reciprocal constructions in grammars tend to be brief and not specify the full set of words that a given phenomenon is found with, particular care will be taken to incorporate, into the database, material from dictionaries and texts. Some of this work will be undertaken by Master’s or Honours students with specialist language backgrounds.

Since published materials often leave tantalizing gaps, we will supplement these in a number of cases with targeted field sessions with speakers of identified languages residing in Melbourne. Where appropriate, some of this work may be undertaken by Honours or Master’s students under the supervision of senior members of the team.

The fourteen languages of the core sample have been chosen on the basis of several factors: the availability of sufficient expertise to make a head-start with the analysis, the lack of detailed available material on how the phenomenon works in the language family; the preliminary identification of interesting or unusual phenomena in the languages (e.g. the Kayardild, Bininj Gun-wok, Dalabon, Maung, Kuuk Thaayorre, Wambaya, and Indo-Pakistani Sign language constructions discussed above), and the need to represent under-studied linguistic types (e.g. sign languages). Since the focus in this part of the project is on depth and delicacy of description rather than on being a random sample in world terms, it does not claim to be fully representative of the world’s linguistic diversity; this will be balanced through the inclusion of material from a much larger set of languages, gained from the library-based work, sessions with speakers resident in Melbourne, and work by other fieldworkers formally outside the main project but aware of the questions and protocol through their affiliation with MPI Nijmegen or from the web site.

The initial list of identified languages for study (marked * if currently endangered by lacking young speakers) is:

**Australian:** *Kayardild, Bininj Gun-wok, *Dalabon, Iwaidja/*/Ilgar (all Evans); *Wambaya/*/Gudanji (Nordlinger); *Maung (Singer – Ph.D. student); Thaayorre (Gaby – Ph.D. student).

**Papuan:** Mountain Ok (Round – Ph.D. student)
Nicholas Evans: *Reciprocals across languages* (ARC Discovery Proposal, 2002)

**Austroasiatic** – Aslian (Malaysian minority languages): Semelai, Hma’ Meri, Cheq Wong (both Kruspe)

**Austroasiatic** – Munda (India; tribal minority language): Mundari (Evans, with Professor Toshiki Osada of the Kyoto ...)

**Austronesian** – Tetun Dili (Nordlinger)

**Sign Language** – Indo–Pakistani Sign Language (Zeshan)

At least one further language (“Language X”) will be added to this list according to the interests of the fourth Ph.D. student to be recruited to the project.

The time-line for the various time-linked components of the project is set out below. Library-based data entry and Melbourne-based fieldwork are not shown, as they will be phased evenly across the lifetime of the project. The languages for Evans’ fieldwork are shown only by number, since the choice of language(s) in each year will depend on hard-to-plan factors within the speech communities, with which he is regularly in touch.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003.1</td>
<td>Recruitment of Research Fellow; data-base design; develop initial questionnaire. First three Ph.D. candidates in place.</td>
</tr>
<tr>
<td>2003.2</td>
<td>Develop video elicitation protocols with MPI group, Nijmegen. Post initial web page with project summary. Evans Australian field trip #1. Recruit fourth Ph.D. candidate</td>
</tr>
<tr>
<td>2004.1</td>
<td>Kruspe field trip (Semelai, Hma’ Meri, Cheq Wong)</td>
</tr>
<tr>
<td>2004.2</td>
<td>Ph.D. field trips: Thaayorre, Maung, Ok, language X. Evans Australian field trip #2,3. ALI workshop on reciprocals. Nordlinger field trip</td>
</tr>
<tr>
<td>2005.1</td>
<td>Zeshan field trip (Indo–Pakistani Sign Language)</td>
</tr>
<tr>
<td>2005.2</td>
<td>Evans Australian field trip #4</td>
</tr>
<tr>
<td>2006</td>
<td>Submission of Ph.D.s. First PI writes up monograph during SSP</td>
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</table>

**E5. National benefit**

Over the last three decades Australia has moved to the forefront of world linguistic research, as regards fieldwork on little-known languages, an apt response to the fact that over a third of the world’s five thousand languages are spoken in our region. This research has done much to open the blinkers of a traditionally monolingual society by raising national awareness of language issues.

This project will develop linguistic research in Australia in several ways. Firstly, in terms of depth, it responds to the need for ‘second generation’ linguistic research on languages for which a reference grammar may now be available but where we are still far from understanding the intricacies of how meaning is expressed, by pursuing a particular semantic domain in greater detail. Secondly, it will expand the range of questions asked about the languages under study by placing the study of languages of the region in a broader comparative perspective. Thirdly, by bringing together disparate research approaches to the study of reciprocals, and relating the findings of the project to the great central questions of linguistics, it will ensure an engagement with general linguistic theory, to avoid the problem of Australian linguistics simply serving as purveyors of interesting data to theory-builders in the northern hemisphere. The substantial involvement of postgraduate and postdoctoral cohorts in the project will ensure that these three benefits will be invested in the next generation of Australian-trained linguists.
A further national benefit flows from the more detailed documentation of seven indigenous Australian languages (five of them gravely endangered) and a comparable number of other indigenous languages of the region: the gradual (and belated) development of interpreting services for indigenous languages, and the making available of the subtleties of indigenous systems of knowledge, must be underpinned by detailed explorations of how these languages express meanings, at a level well beyond what current grammars and dictionaries provide. Though obviously restricted to a single area of meaning (reciprocals), the project will provide a template for how detailed second-generation fieldwork can proceed in other areas.

E6. Communication of results
All findings assembled during the project will be entered in a data-base which, once in a reasonably definitive form, will be made available to scholars world-wide over the web. A project description, question framework and call for data from interested scholars will also be posted on the web and updated at periodic intervals. Additionally, textual material gathered during the project will be archived as digitized CDs in several places: at the University of Melbourne, the TIDEL [Tools for the Documentation of Endangered Languages] archive at MPI Nijmegen, and (when it involves Australian languages) at AIATSIS and appropriate regional language centres.

The PIs, with collaborators where appropriate, will publish several articles on theoretical topics in leading international journals; including one on dyadic kin terms in the languages around the world; and one on the interaction of semantic and grammatical structure. The first PI will also write a substantial monograph on the typology of reciprocals.

Detailed portraits of reciprocals in several languages of the survey, written by the various investigators in the project, will appear in a number of ways: following a workshop which will be held in mid-2004 (probably in conjunction with the Australian Linguistics Institute), some will be assembled in a guest-edited issue of an international linguistic journal, while those by the four Ph.D. students will appear as chapters in their dissertations.

Over the lifetime of the project, a ‘reciprocals working group’ will hold regular open seminars and half-day workshops based in the Department of Linguistics & Applied Linguistics at U. Melbourne; a small budget for this is included. Additionally, participants in the project will regularly present their findings at relevant international conferences as well as more popular outlets (radio, popular press), though this is not a budget item as participants will be expected to find other sources of funding for this.

E7. Description of personnel
The first CI will manage the overall project, undertake fieldwork on four of the Australian languages, plus (in collaboration with Prof. Osada) Mundari in India, supervise the four Ph.D. students, supervise the Postdoctoral Research Assistant, and do some of the Melbourne-based fieldwork.

The second CI will undertake fieldwork on one of the Australian languages and Melbourne-based work on the Austronesian language Tetun Dili. She will also assist in the supervision of Ph.D. students and the RA as appropriate. Her work will focus particularly on the interaction of reciprocals with complex grammatical constructions in Australian languages, in conjunction with her current APD project on subordinate clauses in Australian languages. The behaviour of reciprocals across complex clauses is central to current debates concerning the universal properties of reciprocals (Heim et al 1991, Dalrymple et al 1998), yet information on the behaviour of reciprocals in these contexts is scanty. Nordlinger’s work on the typology of these complex clause types in Australian languages will feed crucially into this central issue.
The Postdoctoral Research Assistant will design and implement the data base, read and input material from grammars, dictionaries and texts, oversee the digitization and archiving of the material gathered, set up and maintain the web-based interface, undertake some of the Melbourne-based fieldwork, and (if appropriately qualified) undertake a research field trip for one or more languages in which (s)he has expertise. This position will be advertised widely as soon as funding is confirmed, so as to be filled by Easter 2003, and a strong field of Ph.D. graduates is expected to apply.

The Administrative assistant will undertake five hours per week (on average) of project administration, organizing payrolls, fieldwork details, working group meetings etc.

The Ph.D. students will undertake detailed fieldwork on reciprocals within the ambit of their broader Ph.D work, of which the reciprocal research will constitute one sizeable chapter each. Three of the four Ph.D. students (Gaby, Singer and Round) have already been recruited, so as to be in place from the first half of 2003; the fourth position will be recruited once funding is confirmed.

[If included: lines on Levinson]

Zeshan will undertake a focussed field trip investigating the expression of reciprocity in Indo-Pakistani sign language. As mentioned above, her preliminary work identifies this as a language in which the subtypes of reciprocal discussed on p. 3 are encoded by quite different constructions.

Kruspe, the world’s leading expert on the Aslian languages of Malaysia, currently undertaking a postdoctoral fellowship at the Research Centre for Linguistic Typology at LaTrobe, will be employed as a special postdoctoral research assistant for two months, to undertake a focussed field trip investigating the expression of reciprocity in three Aslian languages, Semelai, Hma’ Meri and Cheq Wong.

The Melbourne-based language consultants will work with the PIs and the RA, to elucidate the detailed structure of reciprocal constructions in their own language(s).

E8. References

[All references to articles by Evans and Nordlinger are to be found in §B10.2 and §B10.3]

