

Domains of point of view and coreferentiality: System interaction approach to the study of reflexives

ZYGMUNT FRAJZYNGIER

University of Colorado

1. Introduction

Any cross-linguistic study of “reflexives” faces the problem of the criteria in the choice of data: should one choose to study some narrowly defined functions, or should one choose to study all forms that may share some functions? Most studies of binding properties take as their criterion a form that meets certain functional properties. As a result they examine a class of anaphors, loosely defined as forms that do not have independent reference, and that are bound in some domain. Most studies that take as a defining criterion a specific function look at various forms that code the given function. Such determinations of scope, while necessary for any kind of research, run the risk that some relevant facts will simply not be considered, because a given form or a given function does not meet the preconceived parameters.

Studies that examine “anaphors” recognize, depending on the criteria used, up to three types of forms, e.g. SE- and SELF-anaphors and reflexive clitics, as in Reinhart and Reuland (1991). Approaches that start with function define the prototypical reflexives as those in which “a participant acts on himself/herself, rather than on any other” (Lichtenberk 1994: 3504). Similar approaches can be found in Givón (1990); Faltz (1985); and Wierzbicka (1996: 419). Such approaches leave other functions of “reflexive” forms undescribed, and they do not account for the presence of several reflexive forms within a given language.

The object of the present study is the forms referred to as “reflexive pronouns,” “anaphors,” “reflexive clitics,” with no constraints as to what functions these markers have. There are three aims of the present study:

1. To demonstrate on the example of these forms that once the function of the form is understood, its binding properties, if any, are predictable.

2. To demonstrate that the functions and syntactic properties of a given form crucially depend on what other forms the language has available for the coding of a given functional domain (for the notion of functional domain cf. Frajzyngier and Mycielski 1998). I hope to demonstrate on the example of reflexives the interaction of various components of grammar and lexicon in the coding of a given semantic domain.
3. To argue for an explicit methodology of establishing the function(s) of a grammatical form.

2. Methodology

The proposed method is as follows: In order to understand the function of a grammatical form it is necessary (1) to establish to what functional domain a given form belongs; (2) to find out what other forms belong to the same wider domain; (3) to establish the functional scope of each form within a given functional domain. The crucial point in this methodology is (2) because it ultimately helps to establish the functional domain of a given form. Very many contemporary studies are not explicit with respect to their methodology. Consider a type of sentence to be found in the literature as an illustration of the prototypical reflexive function, i.e. coreferentiality of subject and object (or agent and patient):

- (1) *Henryk ogolił się.*
 Henry shave:PERF:PAST:3MSG REFL
 'Henry shaved himself'. (Wierzbicka 1996: 417)

Wierzbicka, like many other scholars, takes the coreferentiality for granted and does not provide any evidence in support of this analysis. And yet, one can easily find sentences with the same verb and the same morphological marker where coreferentiality is ruled out by the situation:

- (2) *Henryk poszedł do fryzjera ogolić się.*
 Henry go-PERF:PAST:3MSG to barber:GEN shave:INF REFL
 'Henry went to the barber to get a shave'.

If the same form one time codes coreferentiality and another time does not, then coreferentiality coding is not its function and a different analysis must be sought. But regardless of what specific analysis one is proposing, the method of the analysis must be explicit.

The proposed method involves several steps. One is to look at forms in the language that cannot cooccur with the target form, because they are tautological or because their meaning would contradict the meaning of the target form. Thus taking

example (1) we find that we cannot add to it *siebie*, another reflexive marker in Polish. The reason we cannot do this is that the meaning would be tautological:

- (3) *Henryk ogolił się *siebie.*
 Henry shave:PERF:PAST:3MSG REFL REFL
 'Henry shaved'.

We cannot add to this example another object, because the meaning would be contradictory:

- (4) *Henryk ogolił się *go.*
 Henry shave:PERF:PAST:3MSG REFL 3M:SG:ACC
 'Henry shaved'.

A third person object is perfectly grammatical with the verb 'shave':

- (5) *Henryk ogolił go.*
 Henry shave:PERF:PAST:3MSG 3M:SG:ACC
 'Henry shaved him'.

Although this example appears to pass one test for the meaning of the form, one should also examine other occurrences of this form and see whether they code coreferentiality. If they do not, one would need to explain why coreferentiality does not obtain. If no explanation can be provided, then coreferentiality should not be taken to be a function of this form. In example (2) I gave one instance where coreferentiality is ruled out. And here is another example. It is important because the verb is also a verb of personal grooming, but unlike shaving, this grooming is very seldom performed on oneself. Traditionally it is done by someone else:

- (6) *Henryk ostrzygł się.*
 Henry get a haircut:PERF:PAST:3MSG REFL
 'Henry got a haircut'.

Thus, the form *się* does not code coreferentiality. And yet it cannot cooccur with another marker of coreferentiality that language has and it cannot cooccur with another object. Since the other marker of coreferentiality (the evidence for this is provided later in the paper) has the form of object, and it is marked by the accusative case marker, one can hypothesize that the form *się* cannot cooccur with another affected argument. Hence the meaning of the form *się* could include affectedness, and since there is only one argument in the clause, it codes the affectedness of the subject. In order to prove this hypothesis one would need to look at other occurrences of *się* and see whether they all code affectedness. If they do not, the hypothesis must be further modified, until a satisfactory answer is found. An analysis is satisfactory if it passes explicit criteria.

3. Hypotheses

Previous studies of the morphemes in question have shown that there might be at least three functional domains for these forms: affectedness of the subject, coreferentiality (the prototypical reflexive), and stativity. The last domain is not discussed in the present paper because previous studies have shown that grammatical structures involving reflexive forms (the ones that Reuland refers to as SE-anaphors) are non-stative (Frajzyngier 1978). Such forms are in functional contrast with stative passives as illustrated in (7), to be compared with (6). The translation does not reflect the stative meaning, because the notion of cutting hair on the head has not been lexicalized in English:

(7) *Henryk jest dobrze ostrzyżony.*

Henry be well get a haircut:STAT:MSG

'Henry got a good haircut'.

The choice of languages in the present study has been dictated by the number of coding means suspected to participate in the domain of the semantic roles of subjects and coreferentiality. Let us consider the following working hypotheses:

1. In languages with two or more forms encoding "reflexive" functions, one form codes the event from the point of view of the subject. Representing the event from the point of view of subject subsumes subject affectedness with those verbs that may involve affectedness. The other form codes coreferentiality between arguments, such as the subject and another argument. The presence of another argument subsumes the control over the event on the part of subject. One cannot predict a priori which form codes which function. Thus, contrary to Reinhart and Reuland (1991), the presence or absence of phi features (i.e. features encoding gender, person, or number) in an anaphor is not a predictor of its binding properties. It appears, however, that within a language, the more-grammaticalized forms code point of view and the less-grammaticalized forms code coreferentiality among arguments. Across languages, however, forms that do and do not code gender, number, and person may function as markers of affectedness as well as coreferentiality.
2. In languages in which there is only one reflexive form, there may be no formal distinction between affectedness and coreferentiality coding.

4. Point of view

Starting from the same situation with a set of participants A and B, the speaker of a language that has the appropriate grammatical means can choose one of the

two points of view: the point of view of the agent, or initiator, or the point of view of the patient, object, goal—whatever categories a given language may have. The notion of point of view of the agent, or initiator, means that the event represents the state of the initiator, agent, and so on rather than the state of the goal. The point of view of the agent almost always subsumes the affectedness of the agent but does not necessarily imply lack of control or de-agentivization. Conversely, the point of view of the goal represents the event as directed at the goal, patient, et cetera. As an easy illustration consider the point-of-view representation of a movement event: One where Z moved from point A to point B. In Polish the information about this event may be represented in several ways, depending on what point of view the speaker chooses to represent, not depending on the event itself.

The following are examples from the point of view of the source:²

- (8) *Z. wy-szedł do teatru.*
 Z. out-go:PAST:3MSG to theater:GEN
 'Z. went to the theater'.

Point of view of the goal:

- (9) *Z. przy-szedł do teatru.*
 Z. out-go:PAST:3MSG to theater
 'Z. came to the theater'. (the speaker does not have to be at the theater at the time of the arrival of Z.)

Point of view of the path and unspecified point of view with respect to source and goal:

- (10) *Z. po-szedł do teatru przez zaśmiecone ulice.*
 Z. go:PAST:3MSG to theater:GEN through trash-covered streets
 'Z. went to the theater through trash-covered streets'.

When one chooses participants, it is again the speaker's choice, rather than the situation, that determines the point of view.

5. Argumentation

The argumentation for the two hypotheses consists of discussion of languages with two or more reflexive forms and languages with only one reflexive form. Among languages with two or more reflexive forms the following types have been selected: languages in which the two forms are free lexical items but grammaticalized (Mupun [West Chadic]; Gidar [Central Chadic]); languages in which one form is

a free lexical item and the other is a clitic (Polish); languages in which there are two inflectional codings on the verb and one form that involves a free lexical item (Xdi [Central Chadic]). Given the fact that some languages have several “reflexive” forms, it is to be expected that the functional ranges of the reflexive forms across languages will not overlap completely. The second type, a language in which there is only one reflexive form, is represented by English.

6. A language with two forms: Polish

Polish has two reflexive markers, one that is not sensitive to case, *się* and the other, which is case sensitive, *siebie* (ACC), *sobie* (DAT), *sobą* (INSTR). Both of these markers have been traditionally recognized as reflexive in the usually accepted sense of subject acting on object. I propose that the marker *się* codes subject affectedness, and does not code subject control. The marker *siebie* and its related forms code the identity of subject with some other argument. The proposed hypothesis differs from recent treatments of these markers in the literature.

Wierzbicka (1996) argues that the constructions with *się* in Polish should be considered reflexives because they can be used to express the prototypical meaning of reflexive:

- (11) *Henryk powiesił się.*
 H. hang:PERF:PAST:3MSG REFL
 ‘Henry hanged himself’. (Wierzbicka 1996: 417)

Reinders-Machowska (1991) does not include the marker *się*, among reflexives (she provides no justification for this exclusion), and instead discusses only *siebie* and other case-marked forms. Dancygier (1997) postulates that the form *siebie* represents “the only ‘true’ reflexive, centrally representing two different semantic roles as both filled by one entity” (325). The marker *się*, according to her, “has a role-neutralizing function.” (325).

Additional evidence that *się* does not code coreferentiality is provided by numerous examples in which *się* is deployed and yet the agent is different from the patient. In the following fragment the form *się* (represented as *śe* in the transcription) codes the so-called reflexive verbs *ożenić się* ‘to take a wife’, *klócić się* ‘to quarrel’, *ostąpić się* ‘to stop doing something’. But it also occurs after the transitive verb *otrucić* ‘to poison’, where it represents the point of view of the subject, subject affectedness, rather than subject control. In the following example the event does not involve a suicide but rather a murder. It is presented, however, from the point of view of the intended victim rather than from the point of view of the murderer:

- (12) *Za tom smrek'om ożenił się Józef Stwopa z wdovom.*
 behind that spruce married REFL J.S. with widow
 'Behind that spruce J.S. married a widow'.
Fćogle ś-kwućyl'i. Ta xwolera natwukwa śivego kam'eńo
 always REFL-quarrel:PAST:3PL that bitch pounded blue stone:GEN
 'They quarreled all the time. The bitch pounded some blue stone
 (*tako trucizno*), *dawa mu do l'ipove xarbaty.*
 (a poison) give:3F:PAST 3MSG to linden:ADJ tea
 (a poison), put it into his linden tea'.
No ji p'uw.
 well and drink:3MSG:PAST
 'Well, he was drinking it'.
Na dno poźrow, ze jez żelony kamiej,
 at bottom look:3M:PAST COMP be green stone
 'He looked at the bottom and noticed a green stone there'.
ale się nie wostopiłw ji nie wotruw się
 but REFL retreat:3MSG:PAST CONJ NEG poison:3MSG:PAST REFL
 'He did not stop drinking, and did not get poisoned'. (Nitsch 1960: 111)

If one accepts the hypothesis that *się* indicates just the affectedness of the subject, one can not only account for all transitive verbs with the marker *się*, but more important, one can also account for all intransitive verbs with the reflexive *się* without the need to invoke semantic extensions, secondary functions, or a host of other ad hoc explanations. The speaker and the hearer know the fundamental property of the marker and are interpreting its specific role in the clause in conjunction with other coding means, more specifically the lexical meaning of the verb, and the presence and case marking of other arguments. Here are three examples of transitive verbs with one argument. The point-of-view marker represents the event from the point of view of that argument, which is non-controlling.

- (13) *Ale serce mi się kraje na myśl o rozstaniu.*
 but heart 1SG.DAT REFL cut.FREQ on thought about separation
 'But my heart hurts when I think about separation'.
- (14) *Urodziłam się w spalonym mieście.*
 give birth:PERF:1SG:F REFL in burn:PASSIVE:LOC town:LOC
 'I was born in a burnt-out town'. (Polish, Sources)
- (15) *Zobacz, czy woda się podnosi.*
 see whether water REFL rise
 'See whether the water is rising'.

The point-of-view hypothesis explains the presence of so-called reflexive verbs, i.e. verbs that must always have the marker *się*. These verbs inherently represent the point of view of the subject:

- (16) *Sąd ostateczny nie odbył się.*
 judgment last NEG happen REF
 'The last judgment did not happen'.

The important fact about the marker *się*, as indeed about many other grammatical morphemes, is that its deployment is not triggered by some facts of the situation. Rather, speakers, by deploying it, represent the situation the way they want. So even if the verb is transitive and the situation described involves the subject's control, the marker *się* represents the situation from the point of view of what happens to the subject, or how the event affects the subject. This semantic property does not come out in the English translation:

- (17) *Że rozlicza się z dewiz co do grosza.*
 COMP account REFL from foreign currency what to penny
 'He gives an account of all foreign currency [he spent] up to the penny'.
- (18) *Mam czekać, aż zramoleje i będzie się pytał,*
 have:1SG wait:INF until become dotty:FUT and will REFL ask
czy to woda, czy atrament, bo mu się pić
 whether it water or ink because 3M:DAT REFL drink:INF
chce . . .
 want
 'Am I to wait until he becomes dotty and will ask whether it is water or ink because he wants to drink'
- (19) *Czy się sprzedałam w wieczną niewolę, dlatego, że mi*
 whether REFL sell.1SG.F in eternal slavery because COMP 1SG:DAT
dali pieniądze na studia.
 give money for studies
 '... did I sell myself into eternal slavery just because they paid for my school?'

The various case-marked forms derived from *siebie* code coreferentiality of the subject with another argument. The coreferentiality obligatorily implies the subject's control:

- (20) *Nie siebie chcę ocalić, kraj.*
 NEG REFL want:1SG save country
 'It is not myself that I want to save, it is the country'.

- (21) *W każdym razie nie będę jej podsuwał siebie.*
 in any case NEG be:FUT:ISG 3F:DAT push ISG
 'In any case I am not going to push my own person to her'.
- (19) *Ten chłopak być może spróbował siebie oskarżać.*
 DEM boy be.INF may try:PERF:PAST:3MSG REFL accuse:INF
 'That boy might have been trying to accuse himself'.
- (20) *Jak my siebie nazywamy opryszkami, mordercami, zdrajcami, . . .*
 how we REFL call:1PL bandits murderers traitors . . .
 'How we call ourselves bandits, murderers, traitors . . .'
 (and not 'our names are bandits, murderers, traitors')

I want to stress that the deployment of the form is not triggered by the situation, the event, or state, but rather by the speaker's choice of representing the event from the given point of view. Thus the verb *nazywać* 'call' can also occur with the form *się*, and in this case the meaning is subject oriented:

- (21) *A jak się nazywa ten doktor, Wisiu.*
 CONJ how REFL call this doctor Wisia
 'And what is the name of this doctor, Wisia?'

The different functions of reflexives are illustrated by the following sentence, where *się* codes the point of view of the subject and *siebie* codes coreferentiality:

- (22) *Nie staram się nawet tego opisywać i w ten sposób ocalić siebie jako poety.*
 NFG try REFL even that describe:INF and in this way save
 REFL as poet
 'I am not even trying to describe it and in this way save myself as a poet'

If the verb has been lexicalized with the marker *się* it can cooccur with the marker of coreferentiality:

- (23) *Ba, gdyby-m ja to wiedział, to by-m się ustrzegł siebie.*
 INTERJ if-ISG ISG that know DEM HYP-ISG REFL protect:PAST
 REFL
 'Ha, had I known that, I would have protected myself against myself'.

As noted by Wierzbicka (1996), the form *siebie* is also used in all cases in which an argument consists of conjoined NPs. This fact is fully explained by the postulated function of *siebie*, viz. that of encoding coreferentiality of arguments. The form *się* cannot be used in conjunctions because it is not anaphoric, i.e., it is not bound by an argument:

- (24) *Teraz zastrzelisz mnie i siebie.*
 now shoot:PERF:FUT:2SG me and REFL
 'Now you are going to shoot me and yourself'.
- (25) *...to Pan naraził siebie i mnie przez tę idiotyczną maskaradę.*
 ... DEM Sir expose REFL and me by this idiotic masquerade
 'it is you who exposed yourself and me through this idiotic masquerade'.
- (26) *Gdybym całe życie oszukiwała wszystkich i samą siebie.*
 if:PAST whole life lie:1SG:F:PAST everybody:ACC and alone:ACC
 REFL
 'Had I lied all my life to everybody and myself'
- (27) *Nie dręcz mnie i siebie.*
 NEG torture me and REFL:ACC
 'Do not torture me and yourself'.

The form *siebie* is the only form used in prepositional phrases, which is again consistent with the hypothesis that it is a morpheme encoding coreferentiality with the subject:

- (28) *Wyciągnij przed siebie dłonie.*
 spread:2SG:IMPER in front REFL hands
 'Spread your hands in front of you'.
- (29) *że to ona sama ze siebie wszystko napisała.*
 COMP DEM 3F alone from REFL everything wrote:3F:PERF:PAST
 'that she wrote all of this on her own'
- (30) *Czemu muszę psuć i niszczyć wszystko wokół siebie.*
 why must:1SG spoil:INF and destroy:INF everything:ACC around REFL
 'Why do I have to spoil and destroy everything around me?'
- (31) *Sam dla siebie jestem usprawiedliwieniem.*
 alone for REFL be:PRES:1SG excuse:INSTR
 'I alone am an excuse for myself'.

The dative form, *sobie*, codes indirect affectedness of the subject when the verb is transitive. Indirect affectedness includes, but is not limited to, doing something for or against somebody, giving to or taking away something from somebody:

- (32) *Gość psuje sobie tylko karierę. Więc po co.*
 fellow spoil REFL:DAT only career then PREP what
 'The only thing that the fellow ruins is his career. So why bother'.

With intransitive verbs the dative form codes the event seen from the point of view of the subject. The point of view is the state of the subject rather than the activity of the subject:

- (33) *Pójdzie sobie, to się wszystko zmieni.*
 go:FUT:3SG REFL:DAT DEM REFL everything change:FUT:3SG
 'Once he is gone, everything will change'.
- (34) *Pomyślałem sobie ty też, karakon, możesz tak umierać.*
 think:PERF:PAST:1SG:M REFL:DAT you also roach can:2SG so
 die:INF
 'So I told myself: you cockroach, you can also die like that'.
- (35) *Wtedy przypomniałem sobie, dlaczego tam leżę.*
 then recall:1SG:PERF:PAST REFL why there lie:1SG:PRES
 'Then I recalled, why I am lying over there'.

7. Inflectional coding of the point of view of the subject and lexical coding of coreferentiality

Xdi (Central Chadic language spoken in the Extreme North Province of Cameroon) is a VSO language. The object is marked by the preposition *tá*. The semantic role of the subject is marked by a system of tonal alternations and vocalic extensions. There is a suffix *ú* that represents the point of view of the subject and is neutral with respect to subject control, which means that the marker does not exclude subject control (for a related morpheme in Hausa cf. Jaggar 1988). This suffix does not code coreferentiality of the subject with another argument, nor does it code the reciprocal. An additional semantic characteristic of the marker *ú* is the complete affectedness of the subject (although *ú* has high tone, when it replaces the preceding syllable, it assumes the tone of the latter; hence the variation between high and low tones in transcription):

- (36) *D-ù-dá vára.*
 cook-AFF-cook bean dish
 'The bean dish cooked well'.

Cf. *Dà-dá mbítsà.*
 cook-cook Mbitsa
 'Mbitsa cooked'.

(37) *Drá-drà.*

burn-burn

'He burned it'.

Cf. *Dr-ú-drà*

burn-AFF-burn

'It burned completely'.

(38) *blá-blà tá xyà.*

break-break OBJ guinea corn

'He broke a stalk of guinea corn'.

Cf. *bl-ú-blá xyà.*

break-AFF-break guinea corn

'The guinea corn broke'.

An interesting fact about the marker *ú* is that it does not rule out subject control. If the verb has an object, the extension *ú* indicates that the event is done for the benefit of the subject. This form corresponds to the Polish dative reflexive *sobie*:

(39) *Ts-ú-tsà tá xyá.*

cut-AFF-cut OBJ corn

'He cut the corn for himself'.

Cf. *Tsá-tsà tá xyá rà.*

cut-cut OBJ corn Q

'Did he cut the corn?'

The extension *ú* is obligatory with the verbs *zá* 'eat' and *sà* 'drink' in the perfective aspect. The activities of drinking and eating in the perfective must be represented from the point of view of the subject:

(40) *Z-ú-z-à tá dáfá-nì.*

eat-AFF-eat-3SG OBJ food-3SG

'He ate his food'.

(41) *S-ù-s-à tá yzù.*

drink-AFF-drink-3SG OBJ beer

'He drank beer'.

Xdi has another marker, *vá*, whose function is also to represent the event from the point of view of the subject. When this form, glossed applicative, occurs with a transitive verb, it means that the subject benefited from the event:

(42) *Zlyà-vá-zly-í tá nislá-nì.*

take-APPL-take-1SG OBJ gift-3SG

'I took his gift'. (for myself)

Cf. *Zlyá-yá-f-zly-í tá nìslá-yà*
 take-2SG-take-1SG OBJ gift-3SG
 'I took your gift for you'

With verbs *zá* 'eat' and *sà* 'drink' the extension codes selfish eating and drinking:

- (43) a. *Zá-vá-zà tá dáfà.*
 eat-APPL-eat OBJ food
 'He ate all the food'.
 b. *Sà-vá-s-íyù tá yùzú.*
 drink-APPL-drink-1SG OBJ home brew
 'I drank all the beer'.

When deployed with intransitive verbs, the applicative marker codes a limitation of the event to subject only, or to a certain time or effort:

(44) *Ndzdá-vá-tà zíngà tà nyá-tsì tà sá-sà gwìyán.*
 spend time-APPL-PRF Zinga PREP see-3SG IMPF come-come elephant
 'After Zinga has spent some time [working], he sees Elephant coming'.

(45) *blà-vá-p-blà.*
 break-APPL-OUT-break
 'This thing broke into two'.

Cf. *bl-ú-blà.*
 break-AFF-break
 'It broke'.

The coreferentiality of the subject with another argument and the reciprocal function are coded through the use of the word "body," with or without possessive pronouns, as the object of the verb:

(46) *Mbá-f-mbà tá vyá-nì.*
 recover-UP-recover OBJ body-3SG
 'He cured himself'.

Cf. *Mbá-f-mbà*
 recover-UP-recover
 'He recovered'.

The existence of the semantic domain of affectedness of subject is justified by the fact that subjects of transitive verbs and of many intransitive verbs in nominative-accusative languages are inherently not affected, hence, the emergence in language of the form encoding the affectedness of the subject.

8. Unmarked point of view and marked coreferentiality: Gidar

Gidar (Central Chadic) is SVO. The aspectual markers are suffixed to the verb. If there is a causative marker or a dative phrase, it is added before the aspectual marker. Data from Gidar are interesting in that they demonstrate interaction between inherent properties of verbs and several means for the coding of semantic roles of the subject. Three classes of verbs, each characterized by different morphological and syntactic properties, are discussed: intransitive verbs with controlling and affected subject; intransitive verbs with non-controlling and affected subject; and transitive verbs with controlling and unaffected subject.

8.1. *Intransitive verbs with controlling and affected subject*

Some verbs have a controlling and affected subject, and therefore they do not require any additional markers for the coding of affectedness of the subject (data are presented in a broad phonetic transcription to preserve effects of vowel harmony rules):

- (47) *Ò-kò-kò.*
 3-save-PERF
 'He saved himself'.
Ò-kò-hón-kò.
 3-save-PL-PERF
 'They saved themselves'.

The only means to transitivize these verbs is through the use of the causative structure with the marker *gà*. In such constructions, the subject is controlling but is not affected, and instead the additional argument is the one that is affected:

- (48) *Ò-kò-g-wá-kà.*
 3-save-CAUS-1SG-PERF
 'He saved me'.
Ò-kò-gì-tí-n-kè.
 3-save-CAUS-3PL-PL-PERF
 'They saved them'.
- (49) *Mésèkè sèrwéd èbèé-k ásà ínklè.*
 giraffe climbing bent-PERF drink:INF water
 'Giraffe bent down to drink water'

Nì-bèé-gì-ní-kè.
 1SG-bend-CAUS-3M-PERF
 'I made him bend'

The importance of the inherent properties of these verbs in Gidar is that in other languages, e.g., Polish, Russian, French, Spanish, English, the equivalents of these verbs require the marker of affectedness of the subject:

(50) *Uratował się.*
 save:3M:SG:PAST:PERF REFL
 'He saved himself'.

8.2. *Intransitive verbs with affected inanimate object*

There is a class of verbs whose sole argument is non-controlling and affected. The verbs in this class do not require any marker of the affectedness of the subject when they occur with one argument. This class includes verbs corresponding to 'break', 'crack', and 'finish.' In Polish, Russian, and Spanish these verbs do require a middle (reflexive) marker:

(51) *Màsórgà à-ngròf-kò.*
 pot 3M-break-PERF
 'The pot broke'.

These verbs may be used in transitive constructions but only if an object-coding marker, schwa, which assimilates to the preceding vowel, is added to the verb. In such constructions, the affected argument occurs after the verb and the controlling argument before the verb:

(52) *À-ngròf-ú-k màsórgà.*
 3M-break-3-PERF pot
 'He broke a pot'.

**À-ngròf-kò màsórgà.*
 3M-break-PERF pot
 for 'he broke a pot'

(53) *ɣlèngé à-nɣɔl-kà.*
 stick 3M-break-PERF
 'The stick broke'.

À-nɣl-ù-wók ɣlèngé.
 3M-break-3-PERF stick
 'He broke a walking stick'.

- (54) *Glà à-mpár-kà.*
 house 3M-crack-PERF
 'The house cracked'.

Bùwán à-mpàr-á-k glà.
 rain 3M-crack-3-PERF house
 'The rain has cracked the house'.

- (55) *Glà à-báhl-kà.*
 house 3M-collapse-PERF
 'A house fell down'.

Cf. *Á-bhl-ú-kà.*
 3M-collapse-3-PERF
 'He made it fall down'.

- (56) *Á-grák-kà.*
 3M-finish-PERF
 'It finished'.

Á-gràk-tà-kà.
 3M-finish-3F-PERF
 'He finished it'. (small thing)

8.3. Coreferentiality coding in Gidar

Coreferentiality of subject and object in Gidar is coded by the form *zà* 'body':

- (57) *Ndé à-sá nklè à-ndàk-á-k zà-n á mbá hóyónkò*
 when 3M-drink water 3M-bury-3M-PERF body-3M PREP under sand
sí mbágàn ñkáná-n tárré.
 except (Fula) leave nose black
 'When he drank, he buried himself under the sand, except for his black nose'.

- (58) *À-nzàdà-k zà-n dá và-ní.*
 3M-cure-PERF body-3M ASSOC hand-3M
 'He cured himself'. (lit. 'he cured himself by his own hand')

Tà-nzàdà-k zà-t dá và-tá.
 3F-cure-PERF body-3M ASSOC hand-3M
 'She cured herself'.

Coreference between subject and beneficiary is coded by the preposition *kà*:

- (59) *À-lbàhǎ-k wàhlí kà ná-nì.*
 3M-buy-PERF COW PREP GEN-3M
 'He bought a cow for himself'.

Nǎ-lbàhǎ-k wàhlí kà ná-wà.
 1SG-buy-PERF COW PREP GEN-1SG
 'I bought a cow for myself'.

The coreferentiality of subject and dative involves the use of the possessive construction with the preposition *ná* (the vowel may assimilate to the vowel of the next syllable):

- (60) *À-lbà zǎm nó-kò.*
 IMPER-buy food GEN-2M
 'Buy yourself some food'.

If the dative argument is other than the subject, i.e. if the dative has disjoint reference, it must be coded by the preposition *sǎ*:

- (61) *À-lbà sǎ-n ǎzǎmà.*
 IMPER-buy DAT-3M food
 'Buy him some food'.

9. A language with three coding means: Mina

Mina (Central Chadic) has three coding means in the domain of the semantic role of subject. One form codes the affectedness of the subject and is neutral with respect to subject control. Another form codes the affectedness of the subject with verbs of movement, and the third form codes coreferentiality of agent and patient.

9.1. *Affectedness of subject*

The affectedness of subject with unmarked feature control is coded by the noun *tàláj* 'head' followed by possessive pronouns:

- (62) *lí zǎ bákà sí há nkǎ dǎ tàláj tükónj.*
 they COMP today 2SG FUT cook head 2SG
 'They said, today you will cook yourself'.
- (63) *Híd-ii wà tánj á kǎ dǎ tàláj ngǎn zǎ.*
 man-PL DEM return 3SG PERF cook head 3SG be
 'Those people came, she cooked herself'.

The evidence that the subject control is not necessarily involved when *tàláj* 'head' is used is provided by a clause where the meaning of the verb rules out subject control:

- (64) *Sà lín á zàm hlí r ì tàláj wàŋ.*
 1SG see 3SG eat meat PROG at head sleep
 'I saw him chewing meat asleep'.
- (65) *Kásámà á dzà dríf ì tàláj bás.*
 Kasima 3SG sing song PREP head laugh
 'Kasima sings laughing'.
- (66) *Á wàŋ r-ì tàláj ndà.*
 3G sleep PROG-at head walk
 'He is sleepwalking'.
- (67) *Í wàŋ r-ì tàláj ndà.*
 3PL sleep PROG-at head walk
 'They are sleepwalking'.

9.2. *Affectedness of the subject with verbs of movement*

Like many other Chadic languages, Mina has a construction whereby possessive pronouns follow certain intransitive verbs. These pronouns, referred to as intransitive copy pronouns (ICPs) in Chadic literature (Frajzyngier 1977 and references there), can only follow verbs in which the subject is undergoing movement. The following examples illustrate the deployment of ICPs with various verbs of movement:

- (68) *Í-tsù tàtàn á wíá tàtàn.*
 3PL-GO 3PL PREP village 3PL
 'They went home'.
- (69) *Ábà ndá ngán wúutà.*
 ASSOC go 3SG village
 'She returned home'.
- (70) *Zàvàn-í íbà fir tàtán.*
 guinea fowl-PL ASSOC fly 3PL
 'Guinea fowl flew away'.
- (71) *Káyéfi íbà ndá tàtán.*
 strange (Fula) ASSOC:PL go 3PL
 'Never seen before, they left [the room]'.

- (72) *Wàl ná kà báf ngón.*
 wife DEF jump 3SG
 'The woman got out'.
- (73) *Èe hídí wá bú yáŋ tət á mácì.*
 [hesitation] people DEM as for move 3PL PREP there
 'Those people moved over there'. (i.e. the woman with the family)
- (74) *Séy mà tábù ábà sí ngón.*
 except last born ASSOC flee 3SG
 'Except the last born: he fled'.
- (75) *Séy nástà ngón tsákà pàrĩ.*
 the enter (Fula) 3SG inside (Fula) others
 'He entered among others'.

The function of possessive pronouns following the intransitive verbs in Mina (but not in other Chadic languages) is to code permanent displacement of the subject, hence its affectedness. The evidence for this function is provided by sentences that do not imply the end of the event. In such sentences the possessive pronouns may not be used after a verb of movement:

- (76) *Í-tsù á wtó tətàŋ tətàŋ mì? í nkí zìnè há.*
 3PL-go PREP village 3PL 3PL but 3PL INF return VENT
 'They went home but they will return'.

The verbs that inherently code permanent displacement do not allow the use of ICPs, because such a use will be tautological. One of these verbs is *tsù* 'departed':

- (77) **í-tsù tətàŋ á wtó tətàŋ tətàŋ mì? í nkí zìnè há.*
 3PL-go 3PL PREP village 3PL 3PL but 3PL INF return VENT
 for 'They went home but they will return'.

Compare also the following two sentences in the stative construction, where the ICP adds the meaning of finality:

- (78) *Mə ndá-i ngón á mərbàk zà.*
 REL return-STAT 3SG PREP marbak be
 'He returned from Marbak'.
- (79) *Mə ndá-i mərbàk zà.*
 REL return-STAT marbak be
 'He came from Marbak and he may return'.

The proposed function of the ICPs in Mina can explain the ungrammaticality of the following example:

- (80)* *Sà-ndá náŋ á-wíó tì-kóŋ.*
 1SG-go 1SG(ICP) PREP-village GEN-2SG
 for 'I returned to your place'.

The previous sentence is ungrammatical because it is inconceivable to be permanently at somebody else's place. The sentences in which somebody returns to his own place are perfectly grammatical, as evidenced by many previous sentences and the following:

- (81) *Há-ndà tì-kóŋ.*
 2SG-go 2SG-ICP
 'You returned'.

The importance of the ICP pronouns in Mina is that although they code the features of person and number (there is no grammatical gender in Mina), they are not anaphoric.

The use of ICPs in Mina parallels the use of reflexive pronouns with intransitive verbs in Polish, Spanish, and French, where the reflexive pronouns also imply the affectedness of the subject and finality:

- (82) *Vaya te.*
 'Go!' (Spanish)

- (83) *Idź sobie.*
 GO REFL:DAT
 'Go'. (Polish)

Neither the Spanish nor the Polish example can be followed by a clause meaning something like 'but return fast'.

9.3. Coreferentiality with subject

Coreferentiality of arguments (and the accompanying control) is marked through the deployment of the word *ksəm* 'body' followed by possessive pronouns:

- (84) *Áw wá ngwáy wál nà nd-íd ksəm ngán vângáy.*
 INTERJ people wife 1SG go cook body 3SG how
 'The man screamed, how did my wife cook herself?'

10. A language with two coding means: Mupun (West Chadic)

Mupun is a VSO language. Like other Chadic languages it has no morphological case marking. The importance of data in Mupun is that all forms in the domains

discussed in this paper code phi-features, viz. the person, gender, and number of the subject. The affectedness of the subject with the unmarked value for feature control is coded by the structure *mbi* 'thing' + possessive pronoun:

(85) *Wa dəm ta mber n-university.*
 3F go fall 3F:REFL PREP-university
 'She went and found herself at a university'.

(86) *War mber do kəsə vit sə-yi.*
 3F 3F:REFL PAST like that ADV
 'She has been like that very much'.

The coreferentiality of subject and another argument, hence affectedness and control, is coded by the morpheme *s* + person marker:

(87) *Wu paa s-in si gwado.*
 3M cover REFL-3M PREP blanket (H.)
 'He covered himself with a blanket'.

Cf.

(88) *Wu paa si gwado.*
 3M cover PREP blanket
 'He covered [it] with a blanket'.

(89) *Kə n-paa wur si gwado.*
 PERF 1SG-cover 3M PREP blanket
 'I covered him with a blanket'.

The importance of the data from languages with multiple coding means is that the function of each form can be understood only in comparison to the other forms in the same domain. The different analyses of the forms *zich* in Dutch and *sich* in German (cf. controversy between Reuland and König and Siemund, this volume) are easily resolved if one realizes that the Dutch *zich* is a member of a two-marker system, whereas the German *sich* is the only member of the coding system in German. Hence these forms must have different functions in their languages.

11. A language with only one reflexive form

If a language has only one reflexive form, one should not expect functional differentiation of the type available in languages with two forms. It is very likely that such a form will code both subject orientation and coreferentiality. Whether the subject has control over the event is not grammatically marked. Zribi-Hertz (1989) has

demonstrated the importance of the point of view for the analysis of reflexives in English. Her conclusions are fully supported by the data we found, but they need to be supplemented with respect to coreferentiality coding.

11.1. *Subject affectedness*

The following examples all illustrate subject affectedness rather than coreferentiality of two arguments. Although in all of them one conceivably could replace the form with 'self' by another noun, there will be a serious difference in semantic interpretation, going beyond the properties of the replacement noun. Each of the natural speech examples is followed by a made-up example with a substitute noun:

(90) The cubs have eaten themselves to a standstill. (*Wild Planet*, May 3, 1997)

(91) ?The cubs have eaten meat/gazelle to a standstill.

(92) 1_6_0 <780 A> you'd ^just en"!j\oyed your'self#—(spoken data from London-Lund Corpus with references to the text, intonation, and other prosodic markers included)

Cf.

(93) ?You had just enjoyed Peter/concert/the race

(94) 1_9_0 <562 A> he was^sitting in a :c\orner#

1_9_0 <563 A> ^y\es#

1_9_0 <564 A> and [@m] . you^kn/ow#

1_9_0 <565 A> ^came up and 'intro!d\uced him'self# -

Cf.

(95) ?He was just sitting in the corner and, you know, came up and introduced Mary.

(96) 1_3_0 <719 A> and I^found myself !\looking#

1_3_0 <720 A> into^this—!grey mou:stached face#

(97) ?And I found Peter/Mary looking into this grey moustached face

The original sentences describe the situation from the point of view of the subject or the state of the subject. The made-up sentences are all transitive constructions with different meanings of the verb (if grammatical) and most often nonsensical:

(98) 1_4_0 <1163 A> it was^so "Vinteresting# .

1_4_0 <1164 A> to ""^d\o# -

1_4_0 <1165 A> [@:] ^that I would have !liked to have [@] :spr\ead/
my'self#

Cf.

- (99) ?It was so interesting to do that I would have liked to have spread
sand/butter/the dog
- (100) 4_4_0 <1511 A> but he ^drew himself /up#
4_4_0 <1512 A> and ^gave the :half sal/ute#
- (101) ?But he drew Peter up and gave the half salute
- (102) 5_1_0 <162 jl> and ^there he w/as#
5_1_0 <163 jl> ^like :so many [a @ e] . :nearly all the r/est of us# .
l5_1_0 <164 jl> ^finding himself in the l/imelight#
l5_1_0 <165 jl> [n . @ @] and ^l/iking it# .
- (103) ?But there he was, like so many, nearly the rest of us, finding Peter in
the limelight and liking it
- (104) l1_6_0 <687 A> ^he 'll burn 'him' self !\out#
l_6_0 <688 A> if he ^goes on at th/is 'rate#—.
- (105) ?He will burn his neighbour out if he goes on at this rate

The subject-affectedness function of the form “self” is evidenced by the different meaning of the adverb “on his own.” With the form “self” the adverb “on his own” codes the state of the subject; with a nominal object it is a manner adverb:

- (106) 5_10_0 <9 a> and then ^suddenly 'finds himself :on his /own# -
- (107) ?And then suddenly finds Peter/the dog on his own

Additional evidence for the point of view of the subject function of “self” is provided by its use with prepositional phrases. With some verbs, e.g., with the verb “to think,” the form “self” cannot be replaced by a noun in the prepositional phrase:

- (108) l_7_0 <891 A> the [b]—ah I ^th\ought to myself#
l_7_0 <892 A> I 'll ^n\ever see 'one of 'those ag/ain#.
- (109) ?And I thought to him/Peter I will never see one of those again

There are sentences in which a form with “self” can be construed as coding either coreferentiality or affectedness of the subject, which is to be expected given the two functions of the form:

- (110) l0_3_0 <324 a> and ^almost !swings himself 'off !\balance# -
- (111) l1_1_0 <362 B> you can ^put yourself in a :sp\ot#
- (112) 2_12_0 <214 (A> *^cos he nearly* :killed himself :l\ast time she 'did# .

- (113) 10_4_3 <713 a>^cut himself “!so bVadly#
- (114) 3_5_2 <1098 a> ((well)) there’s another play in which . [@:] a character . describes himself as a devil .
- (115) 5_11_1 <260 B> he’s^going to com!mVit himself#
- (116) 10_3_0 <726 d>^and . !give himself a ‘chance to :scVore#
- (117) 1_1_0 <811 A>^I I^don’t I^don’t “\ind my_self#
1_1_0 <812 A>^getting .^getting as as as !irritated# (LLC)

11.2. Coreferentiality coding in English

There is a large class of verbs in English (verbs of grooming, as per Kemmer (1993)) that do not require a reflexive marker if the subject undergoes grooming. Thus, unlike in Spanish, French, or Polish, the verbs “shave” and “wash” occur without reflexive markers. But if a verb is such that it inherently is object oriented, the coreferentiality of subject and object must be coded by a reflexive pronoun with “self”:

Subject and object:

- (118) 1_7_0 <980 A>^I could !sh\oot my’self# .

Subject and beneficiary:

- (119) 1_4_0 <856 B>^I must al!ow my’self ((the)) :good t/ime#
1_5_0 <632 B>^well—^he ‘ought to ‘make him’self a !\ime’table#

Subject and locative:

- (120) 1_9_0 <425 A>^just be’cause he . he’s^sort of ‘gone with:dr\awn/ into *him’self ‘rather ag/ain#*

Object and some other argument:

- (121) They have to protect citizens, from themselves. (“Talk Back Live,” 29 Apr. 1997)

Thus English represents a language with only one reflexive form, but the functions of this form include both subject orientation and coreferentiality. The functional load of the English reflexive, however, is not a sum of the two functions because it is deployed in the coding of coreferentiality only if the inherent properties of the verb are such that it must be oriented toward the goal. This difference between English and Polish is responsible for the phenomenon that I was able to observe

among bilingual English and Polish children with English as the primary language. These children consistently use Polish reflexive verbs and transitive verbs with an affected subject without the reflexive marker. While using Polish they apply the English grammatical pattern with respect to reflexive pronouns. The evidence that English "self" and Polish *się* have different functions is provided by the frequency of both markers. English "self" occurs 1,437 times in the Brown Corpus, which contains one million words.³ The form *się* occurred 9,302 times in a half-million-word corpus of written Polish. Hence the Polish reflexive marker occurred almost twelve times as often as the English reflexive marker. On the other hand, the Polish form *siebie* (with its variants in all inflectional cases) occurred 1,139 times in the corpus of half a million words. Considering the fact that English pronouns with "self" perform the function of intensifiers, and Polish *siebie* does not, or at least not by itself, the frequency of English self is comparable to the frequency of Polish *siebie*.

The interesting thing about languages with only one morphological means in the domain of reflexives is that the functions for which this means is deployed are not predictable. Thus English "self"-forms have a different range of functions from the German *sich*, which is also the only marker in the domain of reflexives (cf. Abraham and König and Siemund, this volume).

12. Conclusions

Many languages have several types of forms referred to as "reflexive." In addition to the obvious question about the functions of different reflexive forms, their existence poses an additional question for a cross-linguistic definition of the category. The identification of the object of the study and the questions asked depend very much on the linguist's chosen theory and formalism. Within the approach that takes the separate reflexive forms as a type of referring expression, an anaphor, the most important issue has been to determine the binding conditions for these forms.

The present paper aims to apply the system-interactional approach to reflexive forms, whereby these forms are analyzed in relation to other coding means available in the respective language. I have shown that the number and types of functions depend on the number of coding means available and on the inherent properties of verbs. Even if verbs describe the same physical activity, their inherent semantic properties may differ significantly across languages. These semantic properties in turn affect the verbs' syntactic and morphological properties. With respect to grammatical coding means, if a language has three forms available, one form codes affectedness of the subject of the verb of movement; the second, affectedness of the subject of other verbs; and the third, coreferentiality of arguments. If a language has

two forms, one form codes affectedness of the subject and other form coreferentiality. If a language has only one form, it codes both affectedness of the subject and coreferentiality, but the functional domains may significantly differ among languages. One cannot predict which function is coded by which coding means.

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Notes

1. Some of these functions overlap with functions subsumed under the term "middle" in Kemmer (1993).
2. Because of the lack of space, and given the focus of the present paper I shall not defend here the analysis of some preverbs as coding the point of view of the source and goal other than by giving examples.
3. I am grateful to Michelle Gregory, who ran the string "self" on the Brown Corpus for me.

Abbreviations

| | | | |
|-------|----------------|--------|---------------------------|
| ACC | accusative | FREQ | frequentative |
| ADJ | adjective | FUT | future |
| ADV | adverb | GEN | genitive |
| AFF | affected | HYP | hypothetical |
| APPL | applicative | ICP | intransitive copy pronoun |
| ASSOC | associative | IMPF | imperfective |
| CAUS | causative | INDIC | indicative |
| COM | comment marker | INF | infinitive |
| CONJ | conjunction | INSTR | instrumental |
| DAT | dative | INTERJ | interjection |
| DEF | definite | LOC | locative |
| DEM | demonstrative | M | masculine |
| F | feminine | NEG | negative |

| | | | |
|------|--------------|------|--|
| OBJ | object | REL | relative |
| OUT | movement out | SG | singular |
| PAST | past tense | STAT | stative |
| PERF | perfective | UP | extension encoding movement upwards |
| PL | plural | VENT | ventive |
| PRF | perfective | | |

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