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COMPARISON OF COME/GO WITH IR/VIR

Dissertação para obtenção do grau de Mestre, Área de Concentração: Língua Inglesa, do curso de Pós-Graduação em Letras, Setor de Ciências Humanas, Letras e Artes da Universidade Federal do Paraná.

CURITIBA

1984

To Paulo and Fabiano,
to make up for moments
we couldn't share.

ACKNOWLEDGEMENTS

I would like to express my gratitude to my tutor, Prof. Dr. Cecília Inês Erthal, for her valuable assistance in the preparation of this study. I am also grateful to Prof. David Shepherd for his kind corrections and to Professors Michael Watkins and José Borges Neto for their helpful suggestions. Special thanks to my parents without whose love, guidance and support this work would not have been possible.

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SUMMARY

The aim of this study is to identify the differences and similarities between *come/go* in English and *ir/vir* in Portuguese, on the basis of a limited sample of their uses as directional verbs. A partial pragmatic approach was adopted in an attempt to explain how far the contextual features can determine the paradigmatical choice of those verbs.

In order to know the factors which determine the choice of *come* or *go* in a given utterance, Charles Fillmore's article "Deictic Categories in the Semantics of *Come*" and Frank Palmer's discussion of "Relational Opposites" in his book *Semantics — A New Outline* were studied and the contextual features related to the examples given by the two linguists were summarized, without being retested due to lack of informants.

Based on the conclusions reached after the analysis of the English pairing verbs *come/go*, sentences with *ir/vir* were constructed presenting the same contextual features as those discussed by Fillmore and Palmer. In order to test the acceptability of those sentences, twenty charts presenting minimal dialogues containing the verbs under analysis were submitted to the judgement of thirty-six native speakers of Portuguese. The informants also answered

questionnaires which aimed at investigating whether individual characteristics would have any influence upon their answers. The data obtained from the informants' answers to the charts were analysed according to nonparametric statistical tests and subsequently these answers were interpreted in a detailed discussion of each chart in an attempt to identify the factors which determine the uses of *ir/vir*. The Fisher test and the χ^2 test were applied in the analysis of the questionnaires but according to the results obtained, it was not possible to reach definite conclusions about the fact that the informants' individual characteristics influenced their answers.

In the semantic-pragmatic analysis, four components representing four variables in the speech act were introduced, namely: *mover*, *origin*, *goal* and *time*; and through the analysis of the combined occurrences or isolated occurrences of their variants it was possible to classify some factors which determine the choice of *ir* or *vir*. A comparison of *come/go* with *ir/vir* was presented taking into account our own conclusions, information from dictionary entries and specific notes on *come/go* in certain reference books.

A brief summary of the differences and similarities between the factors which determine the uses of *come/go* and *ir/vir* is presented in the conclusion of this work, followed by some suggestions for further studies on the subject.

Resumo

O objetivo deste estudo é identificar as diferenças e semelhanças entre *come/go* em inglês e *ir/vir* em português, com base numa amostra limitada de seus usos enquanto verbos direcionais. Uma abordagem parcialmente pragmática foi adotada na tentativa de explicar até que ponto elementos do contexto podem determinar a escolha paradigmática daqueles verbos.

Com a finalidade de conhecer os fatores que determinam a escolha de *come* ou *go* em dados proferimentos, foram estudados o artigo "Deictic Categories in the Semantics of *Come*" de Charles Fillmore e a discussão sobre "Relational Opposites" no livro *Semantics — A New Outline* de Frank Palmer. Características contextuais relacionadas aos exemplos dados pelos dois lingüistas foram resumidas sem serem retestadas devido à falta de informantes.

Com base nas conclusões tiradas a partir da análise dos verbos *come/go*, foram construídas amostras de períodos com *ir/vir* contendo as características contextuais apresentadas por Fillmore e Palmer. Para testar a aceitabilidade de tais períodos, vinte cartelas com desenhos de situações acompanhados de diálogos mínimos contendo os verbos sob análise foram submetidas ao julgamento de 36 falantes nativos da língua portuguesa. Os informantes também responderam questionários que pretendiam investigar se características indi-

viduais teriam alguma influência em suas respostas. Os dados obtidos sobre as respostas dos informantes às situações apresentadas nas cartelas foram analisados segundo testes estatísticos não-paramétricos e subseqüentemente essas respostas foram interpretadas numa discussão detalhada de cada cartela, numa tentativa de identificar os fatores que determinam os usos de *ir/vir*. Os testes de Fisher e χ^2 foram aplicados na análise dos questionários, mas segundo os resultados obtidos não foi possível tirar conclusões definitivas sobre o fato de que características individuais dos informantes teriam influenciado suas respostas.

Numa análise semântico-pragmática, quatro componentes representando quatro variáveis do ato de fala foram introduzidos: *carga*, *origem*, *destino*, *tempo*; e através da análise das ocorrências combinadas ou ocorrências isoladas de suas variantes foi possível classificar alguns fatores que determinam a escolha de *ir* ou *vir*. Uma comparação de *come/go* com *ir/vir* foi apresentada levando em consideração as conclusões tiradas no decorrer deste estudo, informações de dicionários e notas específicas sobre *come/go* em certos livros de referência.

Um breve resumo das diferenças e semelhanças entre os fatores que determinam os usos de *come/go* e *ir/vir* é apresentado na conclusão deste trabalho, seguido por algumas sugestões para futuros estudos sobre o assunto.

1 Introduction

Many speakers of Portuguese have certainly been amused by stories about foreigners and their problems when trying to communicate in Portuguese; such as the following one:

> Once upon a time there was an Englishman who was living in Rio de Janeiro and decided to spend a weekend with a Brazilian friend who lived in São Paulo. He went to the Post Office and sent his friend a telegram in Portuguese, saying: "Venho quinta-feira".
>
> When the Post Office assistant read the telegram addressed to São Paulo she could not make out what it meant, until she finally decided that the person who had written the telegram had made a spelling mistake, so she "corrected" it and typed: "Venha quinta-feira".
>
> The next morning the friend in São Paulo received the telegram and immediately understood that he was being invited to spend the weekend in Rio with his English friend. On Thursday evening the Englishman took a bus to São Paulo at the same time as his friend was getting on one to go to Rio.

Behind this simple story there is evidence of a complex problem which the language teacher has to face in class and about which there is to date no detailed academic description, namely the correspondence between the uses of *come/go* and *ir/vir*. Although a contrastive study of English and Portuguese has gained acceptance among both authors of textbooks and teachers of English to speakers of Portuguese,

no detailed consideration of all the elements of both languages has been made yet. As Charles C. FRIES points out: "The most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner"[1].

The present dissertation will address itself to the question: do the verbs *ir/vir* in Portuguese correspond to the English verbs *come/go* in their uses as *directional verbs*[2] ?

Such research seems valid for two reasons. First because it has been assumed that the pairs of verbs in question have similar uses in two different languages. This can later prove not to be so, and thus may represent a real problem for both teacher and student. Secondly because there is not enough data available on this subject to be applied to language teaching situations and which may facilitate the learning process.

The study to be presented here is, then, an attempt to account for the differences and similarities between the use of *come/go* in English and *ir/vir* in Portuguese considering a limited sample of their uses as directional verbs. It was developed out of the hypothesis that the range of *suppositions*[3] underlying the use of these verbs as directional is not identical in the two above-mentioned languages. In the course of this dissertation we shall try to prove what seems to be one of our basic hypotheses: unlike *come/go* the use of the verbs *ir/vir* is directly related to the position of the speaker, irrespective of the position of the hearer. We shall consider the opinion of informants about the accept-

ability of certain occurrences of *ir/vir* at the same time as we try to investigate the reasons underlying the native speaker's paradigmatical choice between the two verbs. We shall also analyse the reasons for such choice in English by considering works by Charles J. Fillmore and Frank Palmer. The examples provided by these two linguists will not be retested for reasons which will be explained in the Methodology.

This work is based on a limited sample of colloquial uses of *come/go* and *ir/vir* as independent lexical items and not as part of idiomatic expressions. Other uses of these verbs, which cannot be identified as directional, such as in: Ele *vai* se preparar melhor; Ela *vem* se acalmando aos poucos; I have *come* to an answer, will not be considered within the scope of this work either.

Since we intend to provide a more refined explanation about the use of *ir/vir* and their correspondence to *come/go* we believe this dissertation can be useful both for lexicography and for teaching in general, most particularly in the preparation of exercises for native speakers of Portuguese learning English and vice-versa. Furthermore, as this is only a pilot work we hope it can also be useful for more comprehensive studies about this semantic pair as well as similar ones, such as *bring/take*, etc.

The approach adopted in the present work was difficult to identify because of the variety of frameworks available within *Semantics* and *Pragmatics* and their overlap. But, although there is not a clear cut division between *Semantics* and *Pragmatics*, one can say that there is a tendency for the

former to emphasize decontextualized meaning and for the latter to deal with meaning in the context of situation.

For this reason we believe that a semantic approach would not be able to help us in the solution of the problem we are now dealing with, and we shall, therefore, follow a pragmatic approach in order to explain how far the contextual features can be relevant in the production of an utterance. Our decision is based on the idea that in this case Pragmatics can be seen as a pre-requisite for semantic descriptions. This belief is supported by David CRYSTAL when he points out that "Some semanticists now see pragmatics as contrasting with TRUTH-CONDITIONAL SEMANTICS, it being suggested that the difficulties which arise in relation to the latter (e.g. how it handles the notion of PRESUPPOSITION) are more readily explicable with reference to the former".[4]

NOTES

[1] FRIES, C.C. *Teaching and Learning English as a Foreign Language.* Ann Arbor, University of Michigan Press, 1945. p.9.

[2] We understand *directional verbs* as those which imply a physical movement in the direction of a *goal* or from an *origin*.

[3] The term *supposition* is used in this dissertation to refer to the necessary conditions related to the context involving the sentence.

[4] CRYSTAL, D. *A First Dictionary of Linguistics and Phonetics.* Cambridge, Cambridge University Press, 1980. p.279.

2 Review of the Literature

2.1 PRELIMINARY COMMENTS

Considering that the final aim of this work is to facilitate the teacher in the classroom, we shall try to avoid a more complex discussion of notions which are not directly relevant to our subject in order not to overload the reader with information. Our approach will be to present a few concepts which we believe to be essential for the discussion which takes place in the following chapters. Two authors, however, will deserve more consideration because they constitute the basis of this study — namely Charles J. Fillmore and Frank Palmer.

In order to place the reader within the area of study of this dissertation it will be necessary to present some linguists' attempts at defining the terms *pragmatics*, *semantics* and *semiotics*.

According to David CRYSTAL *semantics* is "a major branch of LINGUISTICS devoted to the study of MEANING in LANGUAGE"[1] whereas *pragmatics* is the term applied to "the study of LANGUAGE from the point of view of the user, especially of the choices he makes, the CONSTRAINTS he encounters in using language in social interaction, and the effects his use of language has on the other participants in an act of communication"[2].

Both Semantics and Pragmatics are subareas of a more comprehensive science: *Semiotics*, which Crystal defines as

> The scientific study of the properties of signalling-systems, whether natural or artificial. In its oldest sense, it refers to the study within philosophy of sign and symbol systems in general (also known as 'semiotic', 'semiology', 'semasiology', 'semeiology', 'significs'). (....)
> In recent years, the study of semiotics has come to be applied to the analysis of patterned human COMMUNICATION in all its sensory modes, i.e. hearing, sight, taste, touch and smell.[3]

We are placing the present research within the scope of *Pragmatics* on the understanding that this science comprises all the studies dealing with the relationship between linguistic signs and *context of situation*; i.e. the outside world as well as the users of the language.

Once the users of the language are mentioned, another concept is brought into focus, that of J.L. Austin's *Speech-Acts*; a brief overview of which may be of benefit to the reader. According to AUSTIN there is a distinction between constative utterances and performative utterances; the latter are those through which the speaker does not only communicate or influence other people but also performs certain "illocutionary acts". AUSTIN identifies different types of acts: locutionary, illocutionary, and perlocutionary. For him locutionary acts involve the production of utterances which convey a meaning; an illocutionary act is the aspect of communication which is implicit in the utterance; he understands perlocutionary act as the one in which the speaker

intends to arrive at a particular effect, as, for example, in comforting someone. It is obvious, therefore, that one cannot isolate a speech act from its context, especially those acts which depend on particular aspects of particular cultures; but even speech acts that are common to all cultures, such as giving an order or "asking a question", depend on the context for they can have different *illocutionary forces*.[4]

2.2 CHARLES FILLMORE's VIEW

In his article "Deictic Categories in the Semantics of *Come*", Charles J. FILLMORE introduces his discussion of the verbs *come* and *go* by mentioning two notions which are necessarily involved in the process of understanding the meaning of these verbs, namely DEIXIS and SUPPOSITION.[5]

FILLMORE defines DEIXIS as "those aspects of language whose interpretation is relative to the occasion of utterance" and he explains *occasion of utterance* as involving the time of utterance and times before and after the time of utterance, the location of the speaker at the time of utterance, and the identity of the speaker and the intended audience (p.220). However it should be pointed out that although Fillmore mentions this relation between the participants in the speech act, he does not go deep into the influence of this sort of identity on the choice of verbs.

Within the topic DEIXIS, the author concentrates on three types which are closely related to the discussion of the verbs at issue. The first one is Person Deixis involving the two sub-categories *speaker* and *hearer* which are, in Fillmore's analysis, included into the category *Participant*. It must be noticed, as FILLMORE stated, that the "term 'Participant' is used rather than 'Person' because the latter term includes the non-deictic notion of 'third person'" (p.223).

The second type mentioned by the author is Place Deixis. FILLMORE identifies two categories of Place Deixis in the English language: *Proximal* and *Distal*, pointing out that in certain languages one could also identify the category *Medial*. With reference to Place Deixis, certain differences may be observed between English and Portuguese. In the latter language the category *Medial* can be identified in sentences like: Eu irei *aí* novamente esta noite in contrast with the *Proximal*: Eu virei *aqui* novamente esta noite and the *Distal*: Eu irei *lá* novamente esta noite. The *Proximal* category refers to the position of the speaker at the time of the utterance, that is, the use of the deictic expression *aqui* in this example pressuposes that the speaker is now at the same place where he/she intends to be *tonight*. The Medial category, on the other hand, refers to the position of the hearer at the time of the utterance, since the deictic form *aí* is used to refer to the place where the hearer is, in other words, the supposition of the sentence containing *aí* is that the hearer is now at the place where the speaker intends to be *tonight*. It must be noticed that

in such sentences the verb *ir* is preferable to the verb *vir*, although the second possibility is not completely excluded.

The deictic term *lã*, which is here associated with the *Distal* category, pressuposes that neither speaker nor hearer are at the *relevant place*[6] at the time of the utterance.

The third type of Deixis discussed by FILLMORE is the category of Time Deixis which is found in the tense system of the language as well as in time-deictic words like *now* and *ago*. With reference to tense it is acceptable, according to FILLMORE, to say, for example, I was there or I will be there but not I am there.

Although Time Deixis is an important factor in the language system it is doubtful whether it has any influence upon the paradigmatical choice of *come/go* or *ir/vir*, since its influence seems to be more restricted to the syntagmatic use of place-deictic expressions. For this reason one can say I went there two days ago as well as I came there two days ago since the understanding of the sentences rests on some implications concerning the position of the participants but not concerning time expressions.

The process of understanding the verbs *come/go* is associated with a type of semantic rule labelled by FILLMORE SUPPOSITION RULE and which refers to the second notion discussed in his essay. The author claims that "our understanding of the original sentences includes the semantic interpretation of the newly created sentences among their SUPPOSITIONS"; in other words, the understanding of a sen-

tence involves the understanding of the suppositions implicit in that sentence (p.223). Therefore, in understanding the sentence: Even if he were here, she would be having a good time, one is simultaneously recognizing the suppositions: "(i) It is expected that his being here would result in her not having a good time, (ii) He is not here, and (iii) She is having a good time" (p.223).

FILLMORE presents three supposition rules which are formulated in "quasi-transformational ways" (p.225). The first one applies to sentences containing the English verb *go*.[7] The point of this rule is that "whatever the subject or tense of the verb *go* may be (note that the subject and the auxiliary are not involved in the stating of the rule), the place to which one GOES is a place where I am not" (p.223).

The second rule applies to sentences containing *come*.[8] In this case the place to which one comes is a place where either the speaker or the hearer must be. In both rules there is reference to present location. The first one concerns the speaker's present location while the second refers to the speaker's or the hearer's present location. FILLMORE calls attention, however, to the fact that in a sentence like He came there in 1929, reference is made to the location where speaker and/or hearer were in the past, that is, their location at the *time identified in the sentence* or *relevant time*. For this reason he supplies an additional supposition rule.[9]

In decoding these rules we find that with 1 and 2, the time of the suppositions is the Present, whereas with 3

it is specified by the verbal auxiliary in the Past. It is interesting to notice the interpretation of these rules regarding Person categories since the suppositions may not be the same in Portuguese. FILLMORE explains:

> The subject of the supposition for Rule 1 is the speaker; the subject of the supposition for Rule 2 is the speaker or the hearer. The subject of the supposition for Rule 3 is a function of the Person categories associated with the original sentence. In particular, if the subject of the original sentence is YOU ([-Speaker, +Hearer]) the subject of the supposition is ([+ Speaker, - Hearer]) if the subject of the original sentence is I, the subject of the supposition is YOU. And if the subject of the original sentence is neither YOU nor I but "third person" -Participant the subject of the supposition is +Participant (either YOU or I). (p.225)

FILLMORE discusses a "novel sense of ambiguity" related to the number of possible suppositions (p.225). In this way a sentence like Will he come there tomorrow night? is ambiguous in that it supposes either that the speaker will be there tomorrow night, or that the hearer will be there tomorrow night.

The problem with Fillmore's rules is that he does not fully explain their formulation, he does not spell them out, and for this reason it is difficult to decide exactly what he means by, say, X, Y, Z, but he manages to throw some light on the subject by making use of suppositions.

2.3 FRANK PALMER's VIEW

Frank PALMER includes the discussion of the English pairing verbs *come/go* under the heading "Relational Opposites" which he defines as "pairs of verbs which exhibit the reversal of a relationship between items".[10] Although PALMER explains that *come/go* are "not strictly related as relational opposites" he adds that they "differ in spatial direction in some way" (p.83).

As PALMER points out *come* is restricted to direction towards the speaker or hearer and he classifies three types of direction:

1. SIMPLE DIRECTION

This applies to examples such as Come here and I'm coming, where both participants (to use Charles Fillmore's terminology) are involved. Although these two sentences pressupose a movement of the same person in the direction of the same other one, the roles played by these two persons are inverted if the sentences are interpreted as a dialogue. Come here involves motion of the hearer towards the speaker, whereas in I'm coming it is the speaker who moves in the direction of the hearer; that is, the same being is or will be in movement in the two sentences but in the former he plays the role of hearer whereas in the latter he is the speaker. The important point to be noted in this discussion is that it seems, according to Palmer's words, that it is not the person in movement who determines the use of the verb *come* but rather the one towards whom the motion is directed. In this way the dialogue might be, for example,

—Will Paul come to me?

—Yes, he will come to you.

and still the verb *come* would have been used since the motion is again towards the speaker (in the question) and the hearer (in the answer), indicating, in this way, that no changes are presented as to having a participant or a third person functioning as the mover in the sentence.

2. DIRECTION AT THE TIME OF THE RELEVANT EVENT

PALMER explains that this can refer to either past or future as well as to present time; and he exemplifies with the following sentences:

He came to me in London.

I'll come to see you in Paris (when you get there).

One might ask what should be understood by the term *relevant* as used by Palmer; yet, since no definition or further explanation is provided by the author one can understand from his examples that in this case *relevant event* refers to the event in question, that is the event which is being mentioned in the sentence. For instance, in the sentence He came to me in London the *relevant event* is the third person's coming to the hearer, which is past time in relation to the moment of the utterance, that is, the moment when the speaker is talking to the hearer and saying: He came to me in London.

What Palmer does not make clear in this example is whether the speaker is in London or not, when he produces

the utterance. Of course one might argue that since the examples are concerned with a problem of DIRECTION AT THE TIME OF THE RELEVANT EVENT there is no reason to include the question of *place* asking whether the speaker is in London at the time of the utterance, or not. It is necessary to remember, however, that this may be a determinant of either similarity or contrast in relation to the choice of verbs in Portuguese for this choice may depend on the position of the participants at the moment of the utterance.

One of the possible ways of overcoming this difficulty could be to replace the non-deictic expression in London by the deictic terms *here* and *there*, which would leave no doubt about the present position of the speaker.[11] Another possibility would be to add to the sentence the information when I was there, in this case making it clear that the *speaker* is not in London when he produces the statement.

If we consider the question of supposition we may realize that the sentence He came to me in London is ambiguous, in the sense used by Fillmore and previously discussed in this chapter; that is, it allows for more than one supposition: (i) both the speaker and the hearer are in a place other than London when the sentence is produced; (ii) the speaker is in London but the hearer is not; (iii) the hearer is in London but the speaker is not.

To his second example, however, PALMER presents an extra element which solves the ambiguity i.e. the problem of applying two possible suppositions to the sentence. If Palmer had given only the part I'll come to see you in Paris we would then be faced with the same problem we had in the

previous example. Nevertheless, as he provides the complement (when you get there) as an additional information in parenthesis, he makes it clear that the suppositions to the original sentence must be altered. That is, the use of the deictic term there in the extra explanation given implies that neither speaker nor hearer are in Paris at the moment of the utterance.

One could doubt about the importance of this discussion to the whole question of the use of *come/go*. We concede that it may seem unreasonable to go deep into this point since it has been proved that in English the fact that hearer or speaker were in Paris or not would not make any difference to the choice of *come*; yet, we may not forget that this analysis will lead us to a comparison with Portuguese verbs where *place of participants* may be one of the determinants of the choice of *ir/vir*, as mentioned before.

3. DIRECTION TO A PLACE AT WHICH THE SPEAKER OR HEARER IS HABITUALLY FOUND

In order to illustrate this third type of direction, PALMER has chosen the following examples: Come to my office and I came to your house. A first consideration about these two examples seems to raise a question about the position of the participants at the moment of the utterance, in spite of the fact that the examples are concerned with the participants' position at the moment of the event. The reader must pay attention to the fact that the word *position* is being employed here to refer to the place where someone or something is; in other words, when we say *the position of the*

participants at the moment of the utterance we mean *the place where the speaker and the hearer are when the sentence is produced.*

If we are to analyse the suppositions of the two examples given above, we may enter on rather dangerous ground where we may be forced to choose one of two possible alternatives: we may either interpret the utterances in isolation or furnish them with contextual information not present in the sentences proper. In taking the latter we are bound to run into the danger mentioned by KATZ and FODOR that "because any sentence may be made to mean anything you like simply by constructing the setting to include the appropriate stipulation"[12] the interpretation of the sentences will then depend on the extra information we add to them.

We may, for example, decide that the sentence Come to my office should be analysed within the following contexts: (i) The speaker is in the office at the moment of the utterance and intends to have the hearer, who is in some other place, answer his invitation at that very moment; (ii) The speaker and the hearer are together in a place other than the office and the speaker intends to have the hearer follow him to the place of the event; (iii) The speaker and the hearer are in a place other than the office and the former intends the latter to go to the place of the event immediately after the moment of the utterance but does not intend to follow him; (iv) Neither of the participants are in the office but the speaker wants the hearer to move to the place of the event immediately after the utterance where the

speaker does not intend to be at the moment of the event.

This list of additional information could be increased enormously without any logical conclusion and after detecting so much variation we would probably realize that with the insertion of the extra information we would be analysing situations which could be considered variants of types 1 and 2. This suggests that it would be more reasonable to take the first route and try to interpret the utterance in isolation from *several possible contexts*, that is, to analyse the examples simply as illustrations of the type of direction suggested by PALMER under number 3. In this case, the conclusion must be that in English, whenever there is motion towards a place at which the speaker or hearer is habitually found, the verb *come* is to be used.

This is not, however, the final conclusion about this third type, for if we are still in doubt about the suppositions, PALMER provides some extra information which is extremely valid for this analysis. Under the heading "direction to a place at which the speaker or hearer is habitually found" he adds: "even if he is not there at the relevant time" (p.84). This explanation gives us a hint as to the suppositions, for we are now conscious that we are not dealing with a type similar to number 2 in which the basic argument for using *come* is the position of the participants at the time of the relevant event. The author illustrates his point by adding to each example contextual information in parentheses: Come to my office (though I shan't be there) and I came to your house (but you were out). Since Palmer's arguments are not to be retested in this disserta-

tion, for reasons which will be mentioned later,[13] we shall simply accept that the main difference between the types discussed previously and the one at issue is that here the choice of the verb *come* is determined by the place to which the motion is directed, despite the position of the participants.

The fact that the participants do not need to be at the place where they are habitually found as the determiming factor in the use of *come* reduces the range of suppositions discussed above. Since in a previous paragraph four contexts were provided for the sentence Come to my office, at this point, with the inclusion of the information (though I shan't be there), it is necessary to eliminate at least those suppositions where the context presented the speaker at the place of the event at any of the two moments to be considered (moment of the utterance and moment of the event). Here the use of the deictic term *there* is very imporant in that it excludes the possibility of the speaker being in the office when he produces the sentence.

Therefore, the context valid to the sentence Come to my office (though I shan't be there) is that the speaker is not in the office at the moment of the utterance and will not be in the office at the moment of the event. In comparing this conclusion with the hypotheses for Portuguese, we may say that there is a difference concerning the choice of verbs in this case, for in Portuguese the verb most likely to be used in sentences such as the one in question is the verb *ir*, which, according to most bi-lingual Portuguese-English dictionaries, corresponds to *go* and not to *come*.

Another important point which will have to be proved in the analysis is whether or not the mentioning of a habitual place determines the choice of verbs in Portuguese.

After justifying his arguments about the three types of direction responsible for the choice of the verb *come*, Palmer moves to a brief and rather superficial, though very important, explanation about the verb *go*. He introduces his discussion observing that in sentences like those stated in type 3, the use of the verb *go* "is also possible" (Go to my office and I went to your house)(p.84). At this point it is necessary to establish an order or priority, based on Palmer's premise, to determine which of the two verbs is more likely to be chosen in a given situation. In the case just mentioned it is possible to say that the verb *come* has priority over the verb *go*, according to Palmer's statements.

A second type of direction in which both verbs can be used is an instance where "the reference is to motion AWAY from the position of the relevant person", but PALMER solves the problem of priority by mentioning that "*go* would be much more normal". This statement does not exclude the possibility of the choice of *come*, although the author explains that "I could hardly say Come to my office immediately, if the person I am addressing is with me in some place other than my office, since the motion is then clearly away from me. Similarly, we should not normally say He left you at his house and came to yours for again the motion is away from the relevant person" (p.84).

In analysing the sentence Go to my office immediately we conclude that the type DIRECTION TOWARDS THE SPEAKER OR

HEARER is more important in determining the verb choice of *come* than the type DIRECTION TOWARDS A PLACE AT WHICH THE SPEAKER OR HEARER IS HABITUALLY FOUND, since the office is being used as an example of the speaker's habitual place and yet the verb *go* is to be preferred. Similarly, the type MOTION AWAY FROM THE POSITION OF THE RELEVANT PERSON is one of the crucial factors in determining the use of *go*; even if the *relevant person* is not a participant, as in the case of He left you at his house and went to yours.

Clearly, one might argue that the hypotheses raised above are but a personal interpretation of Palmer's points and examples. We concede that these conclusions may seem rather subjective; nevertheless, as Palmer does not take suppositions into account we find no other alternatives but to try and solve the problem this way since he gives only one or two examples of each type. Therefore, the only possibility to try and overcome this difficulty, at least partially, is through the establishment of a hierarchy of determinants, even if based on an individual interpretation of Palmer's words.

It is also necessary to consider all the possible weak points and controversies in Palmer's theory in order to account for all the different possibilities. If we take, for example, the sentence He left you at his house and went to yours we must consider the possible suppositions implied in it. PALMER explains that *go* should be preferred in this example because of the motion being "away from the relevant person" (p.84). He does not state, however, who the relevant person is.

PALMER concludes his discussion by presenting a final type related to the verb *go*: "if there is no indication at all of the position of either hearer or speaker, *go* will be used" (p.84). At first glance this statement seems to be very clear about the use of *go*, but if a little more thought is given several questions may arise.

The first doubt about this statement is one mentioned above, and which is related to the interpretation of the sentence He left you at his house and went to yours. In this example there is absolutely no indication of the position of the speaker, although it can be said that he is not at the third person's house at the moment of the utterance. In other words, we know where the speaker is not, but we cannot say where he is. If this "no indication" type is to be trusted it may be the determinant of the choice of *go* in that example, and all our discussion would thus be superfluous.

The second problem we may have in interpreting this last type concerns *time* since Palmer does not say to which moment he is referring. This matter may be solved, however, if we understand the expression "at all" as a substitute for both the moment of the utterance and the moment of the event.

The third and certainly more complex doubt raised by Palmer's words is the question of abstraction from context. It has been possible, so far, to abstract from different contexts in order to analyse certain examples. We do not believe it possible for someone, however, to abstract from the context when they are producing an utterance. The paradigmatical choice of *come* or *go* is made at the time of the

production of the sentence in a situation when the speaker decides what to say and how to say it. Thus there may be no indication of the position of the participants for the one who reads or hears a sentence; but when this happens, the verb choice has already been made by the speaker who was part of a context and who took the decision to choose one of the verbs because of the situation he was in, and no choice is left for the reader or listener of that sentence.

2.4 DISCUSSION

Before we move on to the analysis of the Portuguese pairing verbs *ir/vir*, we shall try to summarize the arguments of Charles Fillmore and Frank Palmer discussed above, listing the examples provided by the two linguists and presenting an interpretation of the hierarchy of the determinants of the choice of the verbs to be followed in the comparison with the Portuguese data.

Charles Fillmore's discussion is basically founded on the notions of DEIXIS and SUPPOSITION. He conducts his argument contrasting a set of acceptable and unacceptable examples on the basis of deictic expressions and their syntagmatic relation with the other words in the sentence, as well as providing the suppositions to most of them. Here is a list of the examples dealt with in Fillmore's "Deictic Categories in the Semantics of Come":

*I will go here again tonight.

*I am there.

*I am not here.

I will come here again tonight.

I will go there again tonight.

I will come there again tonight (h.** is there now / h. will be there tonight).***

I will come to the shop tonight (h. is at the shop now / h. will be at the shop tonight / sp.**** is at the shop now).

You will come to the shop tonight (sp. is at the shop now / h. is at the shop now / sp. will be at the shop tonight).

You will come there again tonight (h. is there now / sp. will be there tonight).

He will come to the shop tonight (sp. and/or h. will be at the shop tonight / sp. and/or h. are at the shop now).

He will come there tonight (sp. and/or h. will be at the shop tonight / h. is at the shop now).

We will come to the shop tonight (sp. and h. are at the shop now / sp. or h. is at the shop now / h. will be at the shop tonight).

We will come there tonight (h. is there now / h. will be there tonight).

*Sentences preceeded by an asterisc have been considered unacceptable.

**h. stands for *hearer*.

***The information given in parentheses represents the conditions of adequacy, or else the type of context which must be present in order that the sentence be acceptable.

****sp. stands for *speaker*.

FILLMORE calls the information given in parentheses right after the sentences "SUPPOSITION"; according to him a sentence like I will come there again tonight is acceptable only if it is produced in one of the circumstances given in parentheses, that is, either the hearer is there at the moment of the utterance or the hearer will be there (place of event) tonight (moment of event).

In order to account for the occurrence of these sentences, FILLMORE has established three rules:

- Rule 1, which relates to the present location of the speaker, refers to the use of *go*. According to FILLMORE *go* can never indicate direction towards the speaker.

- Rule 2, which concerns the present location of either speaker or hearer, refers to the use of *come* and can indicate direction to either speaker or hearer.

- Rule 3 also refers to the use of *come* and to direction to either speaker or hearer but it concerns their location (or position) at the time of the event.

Frank Palmer's work, on the other hand, is not based on the study of the relations between deictic expressions and the verbs *come* and *go*. Nor does he provide suppositions to explain the conditions of adequacy which must be fulfilled in order that a certain sentence be produced.

PALMER justifies the use of *come* as determined by three main types of direction:

- Type 1: "Simple Direction Towards the Speaker or Hearer".

- Type 2: "Direction Towards the Speaker or Hearer at the Time of the Relevant Event".

- Type 3: "Direction to a Place at Which the Speaker or Hearer is Habitually Found, Even if he is not there at the Relevant Time".

With reference to the use of *go* he presents the following determinant factors:

- First: "Motion Away from the Relevant Person". Although in this case he also accepts the possibility of one using *come*.

- Second: "Motion Away from a Place at Which the Relevant Person is Habitually Found".

PALMER also discusses a "No Indication of the Position of Either Speaker or Hearer" type, which will not be considered in our analysis for the reasons which have been pointed out previously on pages 23-24.

In trying to summarize the factors which determine the choice of *come* or *go*, we find some common points in these two studies. The first is that *come* seems to be determined by the *goal* of the movement and that the direction must be towards one of the participants or towards the place where they are habitually found. In contrast, the

use of *go* seems to be determined by the *origin* of the motion and this can be either away from the speaker (FILLMORE) or away from either of the participants or their habitual place (PALMER).

NOTES

[1] CRYSTAL, D. *A First Dictionary of Linguistics and Phonetics.* Cambridge, Cambridge University Press, 1980. p.315.

[2] CRYSTAL, p.278.

[3] CRYSTAL, p.317-18.

[4] LYONS, J. *Semantics.* Cambridge, Cambridge University Press, 1978. v.2, p.725-31.

[5] FILLMORE, C.J. Deictic Categories in the Semantics of "Come". *Foundations of Language*, 2:219-27, 1966. The following notes refer to this edition and will be followed by the page number.

[6] The expression *relevant place* is used here to indicate the point where the action takes place.

[7] RULE 1

Original: S VP V

$$\left[x - \left[\begin{bmatrix} \text{Motion} \\ \text{Distal} \end{bmatrix} - y - \text{Location} \right] - z \right]$$

Supposition: S NP Neg Aux VP Cop

[[+Speaker] [not] [Present] [be] Location]]

[8] RULE 2

Original: S Aux VP V

$$\left[\text{NP} - x - [\text{Time}] \left[\begin{bmatrix} \text{Motion} \\ \text{Proximal} \end{bmatrix} - y - \text{Location} \right] \right]$$

Supposition: S NP Aux VP Cop

[[+Participant] [Present] [[be] Location]]

Restriction: When NP and Time of *Orig* are α - *Speaker*, β - *Hearer* and Present, then +Participant of *Supp* must be specified as $-\alpha$ - *Speaker*, $-\beta$ - *Hearer*.

[9] RULE 3

Original: S NP V Aux Adv VP

$$\left[\underbrace{[\alpha - \textit{Speaker}, \beta - \textit{Hearer}; -\textit{Participant}]}_{1} - x - [\text{Time}] \underbrace{[\text{Time}]}_{2} \left[\left[\begin{bmatrix} \text{Motion} \\ \text{Proximal} \end{bmatrix} - y - \text{Location} \right] \right] \right]$$

Supposition: S NP Aux Adv VP Cop

$$[\underbrace{[-\alpha - \textit{Speaker}, -\beta - \textit{Hearer}; +\textit{Participant}]}_{1} [\text{Time}] \underbrace{[\text{Time}]}_{2} [[\text{be}] \text{Location}]]$$

[10] PALMER, F. *Semantics*; a new outline. Cambridge, Cambridge University Press, 1976. p.81. The following notes refer to this edition and will be followed by the page number.

[11] *Present*, in this case, meaning position at the time of the utterance.

[12] FODOR, J.A. & KATZ, J.J. *The Structure of Language*; readings in the philosophy of language. Englewood Cliffs, Prentice-Hall, 1964. p.488.

[13] Cf. Methodology, p.31.

3 Methodology

3.1 INSTRUMENTS

Before we are in a position to achieve the ultimate aim of this dissertation, i.e. to show the differences and similarities between the uses of *come/go* and *ir/vir* as directional verbs, it is necessary to study the two pairs separately and try to identify the situations or types of sentences in which each verb is liable to occur, as well as the factors which determine the use of one or another. A piece of research has been presented in the previous chapter, showing the possibilities for the uses of the English pair. This research has been based on the literature available and although our initial intention had been to retest the conclusions exposed by Frank Palmer and Charles Fillmore by asking native speakers of English about the acceptability of certain sentences, this objective could not be achieved due to the influence of the Portuguese language observed in the analysis of the English informants' answers. Consequently, the framework of the studies conducted by those two linguists has therefore been accepted and reported in this dissertation as a starting point for the analysis of the Portuguese pairing verbs *ir/vir* as well as for the future comparison between the two languages.

In order to achieve a reliable conclusion to the present study, it has been necessary to submit our research to a number of procedures, which will be reported in the following pages. The first step was the formulation of statements in Portuguese which were to be tested according to Portuguese native speakers' opinions concerning their acceptability. Such a formulation had its basis on the conclusions reached after the interpretation of Charles Fillmore's and Frank Palmer's analyses of the English pairing verbs *come/go*. The statements submitted to the informants' judgement, however, have not been translated litterally from English, but, rather, present slight modifications so that they can suit the Portuguese colloquial way of speaking in order not to mislead the informants' answers and, at the same time, allow for comparison. The important point, however, is that our efforts in maintaining the same contextual features have been successful.

Some people might question the validity of asking native speakers about the acceptability of a sentence. It is worth mentioning that other techniques have been tried before the adoption of the one followed in this research. Our first assay was to collect a number of acceptable uses of *ir* and *vir* by selecting sentences from published literary works. This attempt, however, was unsuccessful since many examples from written discourse did not correspond to the reality of the colloquial speech which was our field of interest. Our second attempt was, thus, to select examples from certain comic books in which the dialogues were more faithful in representing actual colloquial speech. Another alternative

had been to record a number of programs on television, such as soap operas, and, after listening carefully to the tapes, to transcribe all the examples in which *ir* and/or *vir* were used as directional verbs. It goes without saying that these two attempts were also frustrated due to the enormous amount of time necessary for the selection of a satisfactory number of sentences capable of meeting the requirements of the research. For these reasons we believed that checking the acceptability of a series of sentences which are equivalent to examples in Fillmore and Palmer, according to native speakers' opinions was a valid way of starting out our research.

The informants' task was to consider twenty charts* with at least one sentence containing either the verb *vir* or the verb *ir*, and say whether the use of the verb in that particular sentence was acceptable or not. Besides the sentences, usually presented in the form of a dialogue, the charts contained pictures and sometimes captions so as to provide the necessary information about the situational context in which the sentences were being used. The aim of this procedure was to find out which sentences the native speakers of Portuguese would consider appropriate, or acceptable.

All the sentences to be considered in this dissertation have been tested with the two verbs (*ir/vir*) in order that the acceptability or unacceptability of both could also be considered in our analysis.

*The set of charts is presented in ANNEX 1.

Furthermore, some of the charts use identical contexts although the sentences in them are different; such is the case of charts III-IV, XIII-XIV; V-VI, XX-XIX; VII-VIII, XVII-XVIII; and IX-X, XV-XVI. This decision has been made in order to assure that the reason underlying the informants' answers was in fact the influence of the context in the choice of the verb. In charts III-IV, XIII-XIV the place of the utterance, where both participants are, is other than the place of the event. The idea is to use Fillmore's Rule 3 (page 26) and Palmer's Type 2 (page 27), which refer to the use of *come* as determined by direction to one of the participants at the time of the event, and test their validity when applied to Portuguese. Charts V-VI, XX-XIX and IX-X, XV-XVI are intended to test the applicability of Type 3 to the Portuguese language. Charts VII-VIII, XVII-XVIII are presented in a context where the participants are at different places; the event will take place in future time and the movement will be in the direction of a place where the hearer is at the moment of the utterance. A similar case is mentioned by Fillmore in the introductory part of his essay when he provides the suppositions, or the necessary conditions, for the use of some sentences in English; the example he gives is I will come to the shop tonight. It may seem strange that this particular example has been chosen among so many others discussed according to a similar framework; the reason for this choice, however, is easily understood if we consider the fact that one of the suppositions goes directly against the hypothesis raised in relation to the use of *vir*. Fillmore mentions three supposi-

tions for the acceptability of that sentence: the first one is that the hearer is at the shop now (where now refers to the moment of the utterance); the second is that the hearer will be at the shop tonight (tonight meaning the moment of the event); and the third is that the speaker is at the shop now. If we take the last supposition we find no difference between the English and the Portuguese pairs of verbs since we assume that *vir* is used with direction towards the speaker. The difference seems to be mainly in the first supposition since we believe that in Portuguese *vir* is not likely to be used with direction away from the speaker; under these conditions the second supposition is also to be tested, for Fillmore does not mention the position of the speaker. The choice of the sentences for the charts, the context presented, the differences found between the two languages under comparison, and the weak points encountered in the preparation of the charts will be discussed more deeply in the coming pages where we shall also provide the results of the statistical analysis of the data.

3.2 PROCEDURES

We shall now discuss the procedures followed for the collection of data. It has been mentioned previously that each informant was presented with twenty charts containing sentences with *vir* or *ir* which were to be carefully considered before deciding about their acceptability or unacceptability within the given situation. The informants were

also given a brief explanation about the content and purpose of the dissertation. It is important to clarify that before being presented to the informants, the charts had been submitted for consideration to highly qualified teachers of Portuguese in order to be sure that they did not present any errors or awkward expressions which might mislead the informants' answers; in other words, to verify if the sentences really suited the Portuguese colloquial speech so that the informants would not be distracted in other ways. After receiving many suggestions for improvement from the specialists, mainly in relation to the use of terms which are recognized as characteristic of written discorse, the charts were adapted and finally approved in the form in which they have been presented to the informants.

After examining each chart, the informants were supposed to say whether the use of a given sentence was appropriate or inappropriate within the context in question. It goes without saying that since an effort had been made to exclude possible distractors from the charts beforehand, and since the informants were aware of what the charts were supposed to test, namely the use of the verbs *ir* and *vir* in specific situations, their answers saying that a chart was acceptable or unacceptable meant that the informants considered the use of that particular verb in that particular sentence and with reference to that particular context appropriate or inappropriate. The answers were taken down and recorded in Table 1 which contains the corpus of the information collected.

TABLE 1

CORPUS OF DATA (COLLECTED ANSWERS)

SET	CHART	INFORMANT																																		TOTAL		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	a	b	c
1	I	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	c	c	c	b	c	c	c	c	c	c	c	1	1	34
	II	a	a	a	a	a	a	a	a	a	a	a	a	a	a	b	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	35	1	0
2	III	a	a	a	a	a	a	a	b	a	b	a	a	a	a	c	a	a	a	a	c	c	a	a	a	b	a	a	a	b	a	c	a	a	c	a	a	27	4	5
	IV	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	1	0	35
3	V	b	b	c	b	c	a	c	b	c	b	a	b	c	c	c	b	a	c	c	c	c	b	a	b	c	a	a	a	c	a	c	a	c	c	c	a	10	9	17
	VI	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	c	c	c	c	c	c	c	c	c	a	c	c	c	2	0	34
4	VII	a	a	a	a	a	a	a	b	a	a	a	a	b	a	b	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	b	a	a	a	b	a	31	5	0
	VIII	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	0	0	36
5	IX	b	a	c	b	c	c	c	c	c	b	a	c	c	c	c	c	a	a	a	c	c	b	a	b	a	a	a	a	c	c	c	c	c	c	b	a	11	6	19
	X	c	c	c	c	c	a	c	c	c	c	c	b	b	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	a	c	c	a	c	c	c	4	2	30
6	XI	a	a	a	a	a	a	a	b	a	a	a	b	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	34	2	0
	XII	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	0	0	36
7	XIII	a	b	a	a	a	a	a	b	a	b	a	b	c	b	c	a	a	a	a	a	a	a	c	a	a	a	a	a	a	a	c	a	a	c	b	a	25	6	5
	XIV	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	c	c	c	c	c	c	c	c	c	c	1	0	35
8	XV	c	a	c	a	c	c	c	c	c	b	a	c	c	b	c	c	a	c	a	c	c	a	c	b	a	b	a	a	c	a	b	c	c	c	b	a	11	6	19
	XVI	c	c	c	c	c	a	c	b	c	c	c	c	c	c	c	c	c	c	c	c	c	c	a	c	c	c	c	c	a	c	c	c	a	c	c	c	4	1	31
9	XVII	a	a	a	a	a	a	a	b	a	a	a	a	b	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	b	a	a	a	a	a	33	3	-0
	XVIII	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	0	0	36
10	XIX	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	0	0	36
	XX	a	a	c	b	c	c	c	b	c	b	a	c	c	b	c	c	a	a	a	c	c	b	c	a	a	b	a	b	a	a	c	a	c	c	b	a	13	8	15

NOTES: (1) This table should be read as follows: the Roman figures in the vertical axis on the left correspond to the twenty charts analysed; grouped into ten sets from a common context identified by the Arabic figures in the vertical axis. The Arabic figures in the horizontal axis correspond to each of the thirty-six informants; letters *a*, *b*, *c* stand for the informant's answers. In the vertical axis on the right the reader will find the total number of informants who decided for each of the alternatives; (2) a = unacceptable/inappropriate; b = undecided; c = acceptable/appropriate.

The twenty charts have been submitted for judgement to thirty-six native speakers of Portuguese and the letters *a*, *b*, c, corresponding to their answers have the following meanings: *a* means that the informant would not choose that verb in that particular situation, in other words, the informant considers the use of the verb to be inappropriate for the context; c, on the other hand, means that the informant considers the sentence perfectly acceptable and believes that the use of the verb is appropriate for the context. The option *b* corresponds to the inability of the informant to decide about the acceptability of a certain sentence.

It is necessary to stress that the informants had been given only two choices, that is, they were supposed to decide whether the sentence was acceptable (c) or not (*a*); so, the option *b*, although relevant in our study, will not be considered in the statistical analysis of the data. In addition to giving their answers, some informants also made comments about the charts, particularly about those which they were unable to label either as *a* or c. These additional comments have been recorded but will not be fully reported in this chapter; they will be included in the later discussion of the charts.

3.3 CHOICE OF STATISTICAL TESTS

After collecting some data to test our hypotheses concerning the influence of particular factors upon the paradigmatical choice of the verbs *ir* and *vir*, statistical tests were carried out. Since the observations were obtained according to a nominal scale (*acceptable* or *unacceptable*) and the distribution of the population was unknown, we have made use of nonparametric statistical tests according to the following justification given by Sidney SIEGEL[1]:

> (....) the nonparametric techniques of hypothesis testing are uniquely suited to the data of the behavioral sciences. The two alternative names which are frequently given to these tests suggest two reasons for their suitability. The tests are often called "distribution-free", one of their primary merits being that they do not assume that the scores under analysis were drawn from a population distributed in a certain way, e.g., from a normally distributed population. Alternatively, many of these tests are identified as "ranking tests", and this title suggests their other principal merit: nonparametric techniques may be used with scores which are not exact in any numerical sense, but which in effect are simply ranks. (p.vii)

Another reason for our choice of these techniques is their usefulness with small samples.

We have also followed the procedure for the application of a statistical test presented by Sidney SIEGEL, which involves the following steps:

> i. State the null hypothesis (Ho).
> ii. Choose a statistical test for testing Ho.
> iii. Specify a significance level (α) and a sample size (N).
> iv. Find (or assume) the sampling distribution of the statistical test under Ho.
> v. On the basis of (ii), (iii) and (iv) above, define the region of rejection.
> vi. Compute the value of the statistical test, using the data obtained from the sample(s). If that value is in the region of rejection, the decision is to reject Ho; if that value is outside the region of rejection, the decision is that Ho cannot be rejected at the chosen level of significance. (p.6-7)

In order to analyse the results of our research, we have made use of three types of nonparametric tests, namely the binomial test for large samples and the Fisher and χ^2 tests for two or K independent samples, looking for those which could suit our observations best.

3.4 STATISTICAL ANALYSIS OF ACCEPTABILITY OF VERBS

In order to determine whether a sentence can be considered acceptable or not, several steps have been followed. First of all, we tried to detect a consensus about the acceptability or unacceptability of the use of each berb

in each of the given situations. This procedure required the elimination of the alternative *b*, for three reasons: first, because our interest was in checking whether the use of the verbs was appropriate or inappropriate; thus the *indecision alternative b* was recorded only when the informant was clearly unable to decide. Second, because we observed that in none of the charts the most frequent answer belongs to this alternative. We may therefore conclude that this does not apply to the majority of informants. Third, because the maintenance of this alternative could distort the result of the test because the frequency of *b* in most of the charts, though small, would determine a result for the test which could be significant, although it would not reflect any difference of alternatives *a* and *c*, but rather of *b* in relation to the expected value.

In order to test our hypothesis that there was a consensus among the informants with reference to the acceptability or unacceptability of a sentence, we have made use of the binomial test for large samples. This is a more powerful alternative for dichotomized data in a nominal scale. The test is of *goodness-of-fit*, i.e., it verifies if the differences between two distributions are due to the *laws of chance* or not. The test for large samples has been used here as the most adequate where the number of observations is larger than twenty-five ($N > 25$). As SIEGEL explains, the binomial distribution tends towards the normal distribution as N increases, and this tendency is aggravated when P (proportion in a given category) is close to half a

unit (1/2), as in our case. Consequently, the sampling distribution is approximately normal, with mean = NP and standard deviation = V NP (1 - P). (p.40)

SIEGEL's procedure was also adapted for the application of the test.

i. *Null hypothesis.* H_0: * $\mu p = \mu 1 - P$. Where $\mu p = NP$ and $\mu 1 - p = N (1 - P)$. In this hypothesis we affirm that there is no difference in the proportion expected in each of the groups *acceptable* or *unacceptable*, $p = 1 - P$ thus $P = 1/2$. The alternative hypothesis H_1** is that $P > 1/2$.

ii. *Statistical Test.* The binomial test for large samples is chosen because the data are dichotomized in two discrete categories and the number of observations within the samples is larger than twenty-five.

iii. *Significance Level.* $\alpha = 0,10$. The sample size is specified in the table which contains the data (Table 2), and will not be specified here because of this being a general statement including all the samples to which the binomial test will be applied.

iv. *Sampling Distribution.* The sampling distribution is approximately normal, with mean = NP and standard deviation = $\sqrt{NP (1 - P)}$; and therefore H_0 may be tested by $z = \frac{(x - 0,5) - NP}{\sqrt{NPQ}}$ where z is approximately normally distributed with zero mean and unit variance, and x is the

* H_0 = people choose equally the answers *a* and *c*.

** H_1 = there is preference for one of the answers.

category frequency with the greatest number of observations. The correction for continuity consists of subtracting 0,5 from the value of x, considering that the observations are a discrete variable and the normal distribution is applicable to continuous data.

v. *Rejection Region.* The region of rejection consists of all values of x which are so large that the probability associated with their occurrence under H_0 is not larger than 0,10. Since there will be rejection of H_0 when x is larger than the given limit, the region of rejection is one-tailed. The region of rejection will consist of all values of $z \geqslant 1,28$.

vi. *Decision.* On the basis of the points stated in the previous items we have arrived at the results shown in Table 2.

The decision is taken in relation to H_0. The reader should be reminded about the reasons why not all the charts stated in Table 1 have been included in Table 2. A close observation of Table 1 will demonstrate that in charts VIII, XII, XVIII and XIX all the thirty-six informants have given the same answer (c); and in charts II, VII, XI and XVII the majority of the answers are *a*, although there is a small frequency of *b*, and none of the informants have chosen the answer c. In view of the elimination of answers *b* for the purpose of our analysis, the cases of the two groups of charts just mentioned are similar in that they both present only one alternative as answer from all the informants. Consequently, the estimated value of z is in the region of rejection in all these charts and the decision implicit in

TABLE 2

DECISION IN RELATION TO H_0

CHART	ANSWERS		TOTAL	VALUE OF z	DECISION
	a	*c*			
I	1	34	35	7,649	rejection
III	27	5	32	3,712	rejection
IV	1	34	35	7,649	rejection
V	10	17	27	1,155	acceptance
VI	2	34	36	5,167	rejection
IX	11	19	30	1,278	acceptance
X	4	30	34	4,287	rejection
XIII	25	5	30	3,469	rejection
XIV	1	35	36	5,500	rejection
XV	11	19	30	1,278	acceptance
XVI	4	31	35	4,395	rejection
XX	13	15	28	0,189	acceptance

NOTE: $z = \dfrac{(x - 0,5) - NP}{\sqrt{NP\ (1 - P)}}$

x = frequency of the favoured answer
N = total number of observations
P = 0,5. Proportion of cases expected under H_0.

them is to reject the null hypothesis; hence they do not need to be included in Table 2.

After explaining the procedures and results of the binomial test applied to check indirectly the acceptability and the unacceptability of certain verbs in particular contexts, we believe that a third table should be constructed in order to present a clear picture of the results obtained. This table will also function as a summary of Tables 1 and 2, presenting all the information relevant to the subsequent discussion of the charts so that the reader may refer back to it when in need of any explanatory datum involved.

Although Table 3 seems to be self-explanatory, some further comments may be necessary in order to interpret the information it contains. The first column (Chart) on the left introduces the twenty charts analysed. The second vertical column (Decision About H_0), which is the result of the application of the binomial test, repeats the information given in Table 2 concerning the decision to either reject or accept the null hypothesis. The third column (Favourable Answer) can be said to be a summary of Table 1 since it provides the letter corresponding to the answer given by the majority of the informants in relation to each of the charts analysed. It goes without saying that the favoured answer could only be identified when there was rejection of the null hypothesis, in other words, one can only identify the favoured answer in Table 1 if the results in Table 2 show that the informants did not choose them equally. Finally, the last column (Acceptability Attested)

TABLE 3

INTERPRETATION OF THE BINOMIAL TEST

CHART	DECISION ABOUT H_0	FAVOURED ANSWER	ACCEPTABILITY ATTESTED
I	rejection	c	acceptable
II	rejection	a	unacceptable
III	rejection	a	unacceptable
IV	rejection	c	acceptable
V	acceptance	-	-
VI	rejection	c	acceptable
VII	rejection	a	unacceptable
VIII	rejection	c	acceptable
IX	acceptance	-	-
X	rejection	c	acceptable
XI	rejection	a	unacceptable
XII	rejection	c	acceptable
XIII	rejection	a	unacceptable
XIV	rejection	c	acceptable
XV	acceptance	-	-
XVI	rejection	c	acceptable
XVII	rejection	a	unacceptable
XVIII	rejection	c	acceptable
XIX	rejection	c	acceptable
XX	acceptance	-	-

is merely a decodification of the symbols *a* and c used in the previous line.

If we take the information related to chart I as an example, the table should be read as follows: since the null hypothesis has been rejected and thirty-four informants, out of thirty-five,* have given the answer c** it means that the use of the verb *ir*, in the sentence and within the context presented in chart I, is considered *acceptable*. The reason why not all boxes in the third and fourth columns have been filled in is that, from the twenty charts analysed, four have not allowed any conclusion to be drawn about the acceptability or unacceptability of the use of the verbs. Such is the case of charts V, IX, XV and XX in which the null hypothesis has not been rejected.

NOTE

[1] SIEGEL, S. *Nonparametric Statistics for the Behavioral Sciences*. Tokyo, McGraw-Hill Kogakusho, 1956. All quotations refer to this edition and will be followed by the page number.

*See Table 2 for figures.

**See Table 1 for figures.

4 Interpretation of the Responses to Uses of Ir and Vir

4.1 GENERAL ASPECTS

On the basis of the results displayed in Table 3, we shall now move on to the analysis and interpretation of the Portuguese pairing verbs *ir* and *vir*, attempting to identify the factors which determine their uses as well as keeping in mind the hypotheses raised in the introduction.

The first aspect to deserve attention is related to the *controlling charts* mentioned previously. In Table 4 below, those charts are arranged in groups according to the context they present, i.e. the purpose for which they have been designed, and the results extracted from Table 3 (Acceptability Attested) are related to each pair.

TABLE 4

CONTROLLING CHARTS IN RELATION TO ACCEPTABILITY

CHARTS	ACCEPTABILITY ATTESTED
III and XIII	unacceptable
IV and XIV	acceptable
VII and XVII	unacceptable
VIII and XVIII	acceptable
V and XX	?
VI and XIX	acceptable
IX and XV	?
X and XVI	acceptable

It is important to observe that all the controlling charts present the same results found for their equivalents, even when no definite conclusion about the use of the verb could be reached. This failure to detect their acceptability is indicated above by a question mark. The consistency of the informants' answers, demonstrated in the lines above, gives rise to a greater reliability of the validity of the analysis as a whole.

In addition to the results of the controlling charts we shall also study those in which the context has been tested only once with each verb:

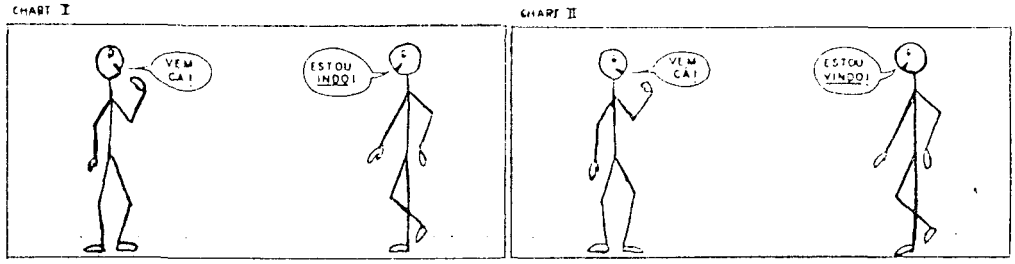
TABLE 5

UNCONTROLLED CHARTS IN RELATION TO ACCEPTABILITY

CHART	ACCEPTABILITY ATTESTED
I	acceptable
II	unacceptable
XI	unacceptable
XII	acceptable

4.2 DISCUSSION OF CHARTS I AND II

In charts I and II, three different sentences are being tested: Vem cá! (Come here), Estou indo! (I'm going) and Estou vindo! (I'm coming).



It might have been an oversight not to have tested the first sentence with the verb *ir*, yet the sentence Vá cá! (Go here) sounds so awkward to any speaker of Portuguese that we felt it unnecessary to check its unacceptability.

Vem cá! (Come here) pressuposes a subsequent movement of the hearer in the direction of the speaker. It is interesting to note that among all the statements analysed, this is the only one to present a deictic term. Cá (here) is an example of Place Deixis, more precisely of the category *proximal*, and the impossibility of using *ir* may be due to the proximity of the verb and the deictic form. The reason may be that the term *cá*, as well as *here* in English, indicates proximity with the speaker, whereas according to most dictionaries the verb *ir* indicates motion away from the speaker. Consequently the use of one excludes the other since they pressupose opposite directions. In view of the results which show that between the two charts only the

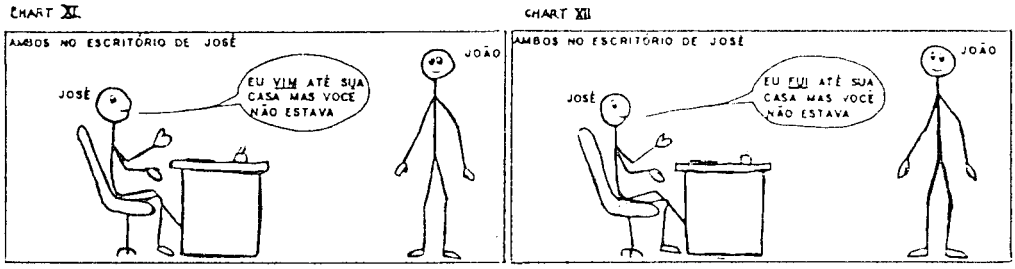
first is acceptable, and since the sentence Vem cá! appears in both, we conclude that the unacceptability of chart II is due to the presence of Estou vindo.

Both charts present the same situational context: the participants are not in the same position, although they may be rather near each other, considering the limits of the chart; with reference to time both the utterance and the event happen simultaneously, that is, the speaker's movement in the direction of the hearer occurs at the same time as he says: Estou indo. The motion, in this case, has its source in the speaker's original position and is directed towards the hearer.

Considering only the results of the first two charts, one might assume that *vir* refers to motion towards the speaker, whereas *ir* is used when the motion is towards the hearer. Another factor might be that *ir* is acceptable because it indicates movement away from the speaker's original position or even because it relates to any movement of the speaker, irrespective of its origin or its goal. With regard to *vir* the first results also show its acceptability with movement of the hearer; in any case, however, it seems to be too early to upgrade these hypotheses into general laws about Portuguese; therefore, conclusions about the types of direction or the determinant factors for the uses of *ir* and *vir* can only be drawn after a more detailed discussion and interpretation of all the twenty charts analysed.

4.3 DISCUSSION OF CHARTS XI-XII

Charts XI and XII are intended to test the sentences Eu vim até sua casa mas você não estava and Eu fui até sua casa mas você não estava, respectively.



The statistical analysis has proved that under the circumstances exposed in the charts (the participants are in the office) only the second sentence is acceptable. Within the context studied, the *relevant moment* or moment of the event is other than the moment of the utterance, and the place of the event is not the same as the place of the utterance. It is, then, necessary to consider the position of the participants in the two examples separately. Both charts have captions indicating the position of the participants during the utterance, and although it is neither possible nor relevant to know where the hearer was during the event, we can say that, according to the sentence, he was *not* at home. This is the relevant point of these charts, since our intention is to check the applicability of Palmer's type 3 to the Portuguese language. If João (the hearer) were at home at the moment of the event, the use of the verb *ir* might be due to the fact that the motion was directed to-

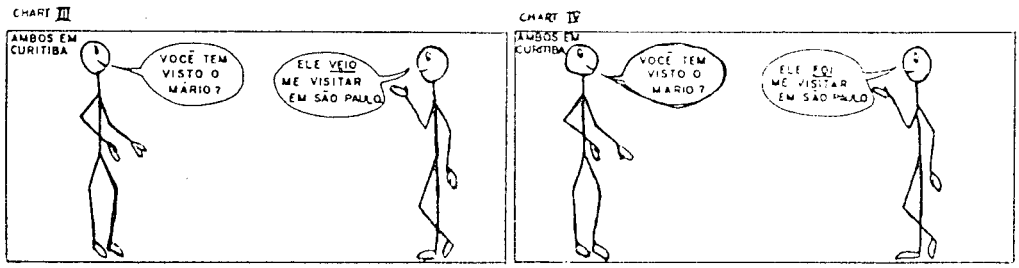
wards him and we would not be able to check the existence of a DIRECTION TOWARDS A PLACE AT WHICH THE SPEAKER OR HEARER IS HABITUALLY FOUND, EVEN IF HE IS NOT THERE AT THE RELEVANT TIME type.

Another aspect to be considered is the time of the event, which, in this case, precedes the utterance. The past time has been used because of our interest in maintaining the same features presented in Palmer's example: I came to your house (but you were out). As far as motion is concerned, its goal is the hearer's habitual place but its origin is not specified in the chart. Both in the example and in the chart the movement is performed by the speaker and not by a third person, and this fact may be relevant in the choice of the verb. In fact, in comparing charts I and XII we find a common point in that both have been considered acceptable in a context where the verb *ir* is associated with movement of the speaker away from his original position and towards the hearer (chart I) and the hearer's habitual place (chart XII).

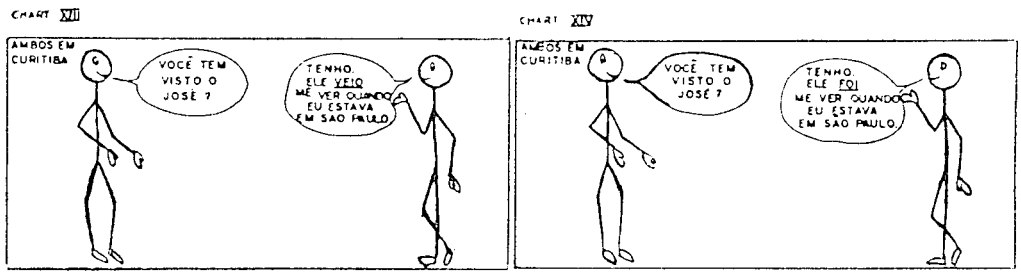
4.4 DISCUSSION OF CHARTS III, IV, XIII and XIV

Our next discussion involves four charts at the same time since they have been constructed in order to test the appropriateness of *vir* and *ir* twice within the same situational context (controlling charts). Charts III and IV

contain the same dialogue, the only difference being the use of the verb being analysed.



Charts XIII and XIV, which have been used as controlling ones, show only a slight difference in the sentences, maintaining, however, the same features present in charts III and IV. These features are: context; time; moment and place of event associated with moment and place of utterance, and participants' positions; direction of the motion; and person performing the movement (which from now on we shall call *mover*).



The presence of the phrase quando eu estava in these two charts emphasizes the fact that the speaker's position has changed from the moment of the event in the past, to the present moment of the utterance. Of course it was not necessary to include this phrase in the sentence since this

fact is evident from the caption; but we intended to check if it would cause any difference in the results of the four charts. The data shown in Tables 2 and 3, however, suggest that the phrase has not caused the informants' answers to suffer changes.

The sentences under discussion here have been constructed using Fillmore's rule 3 and Palmer's type 2 as a basis. In fact, they are but adaptations of the example He came to me in London. It needs to be pointed out, however, that the four charts present dialogues and not isolated sentences; consequently when the word *participants* is mentioned it involves not only one speaker and one hearer but two speakers and two hearers at the same time. In order to avoid doubts concerning their identification it is possible to refer to the participant asking the question Você tem visto o Mário? or Você tem visto o José? as speaker 1, while the one giving the answer would be speaker 2, and a similar identification with numbers could be given to the hearers. Nevertheless, considering that our interest lies on the answers, we believe that a better solution would be to disregard the question, since they have in fact been used only to make the chart seem more real. Since the questions are not taken into account, the word *speaker* comes to refer only to the one who produces the answer, and the one asking the question will obviously be the hearer (of the answer).

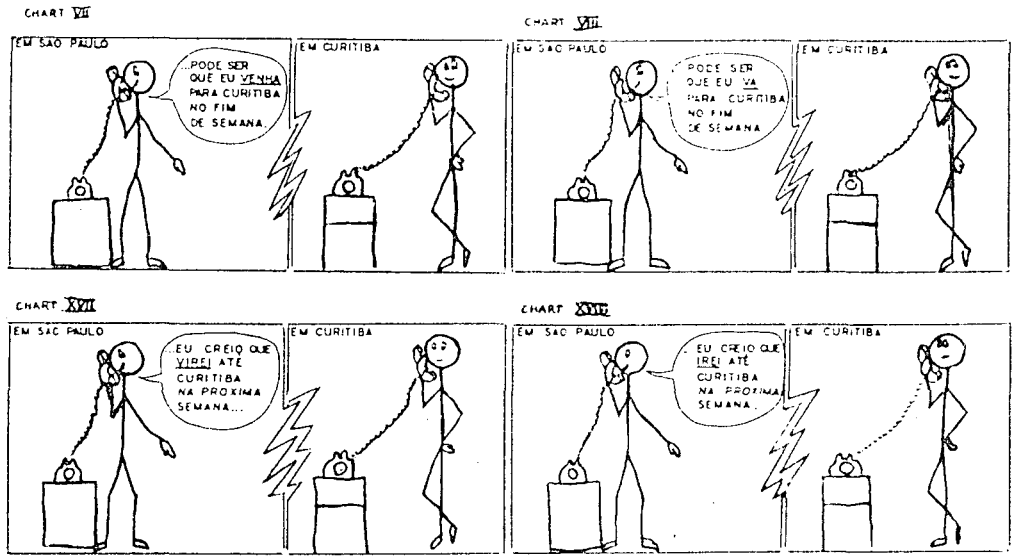
The context of these charts is the following: at the moment of the utterance the participants are together in a place other than the place of the event. At the moment of the event, which precedes the utterance, the speaker is the

goal of the movement and the mover is a third person. If in charts I and II it was thought that the use of *vir* in the sentence Vem cá might be due to movement towards the speaker, we must now reformulate that hypothesis. In charts III and XIII the movement is again towards the speaker but this time the informants considered the verb *vir* unacceptable, whereas with the same type of direction, charts IV and XIV, in which the verb *ir* is used, the utterances have been accepted. The reason for such differences may be the influence of time, since Vem cá deals with moment of the utterance and Ele foi me visitar em São Paulo deals with moment of the event. Of course the moment alone is not the relevant factor but rather its relation with the position of the speaker. That is, in charts IV and XIV, *ir* has been accepted because, although the movement is towards the speaker, it is also away from him when we consider his position at the moment of the utterance. Clearly this is still only a hypothesis and will have to be proved true or false in the course of this analysis, after we collect more evidence.

4.5 DISCUSSION OF CHARTS VII, VIII, XVII AND XVIII

The next four charts to be studied are: VII, XVII, VIII and XVIII. They are similar to charts III, IV, XIII and XIV in that they have also been based on the situations described in Fillmore's rule 3 and Palmer's type 2, and the sentences have features similar to those found in Palmer's

example I'll come to see you in Paris. Nevertheless, in terms of the specific aspects of context the two groups of charts differ a great deal.



For example, in the group being studied now (charts VII, VIII, XVII, XVIII) the participants are in different places during the utterance, whereas in the group previously discussed (charts III, IV, XIII, XIV) the participants were in the same place. The times identified in the sentences, or relevant times, also differ from one group to another: while in one the event precedes the utterance, in the other the event happens after the utterance. Another contrasting aspect is that of motion: in addition to the fact that the mover is not the same person in the two sets of charts, the direction of the movements is also different, and so is its relation to the position of the participants in the moments of utterance and event.

Charts VII and VIII have the same sentences with variation of the verb. The controlling charts XVII and XVIII present the verb in the future tense* whereas VII and VIII use present tense referring to future time. This fact, however, has proved not to affect the results. The two sentences with the verb *vir* have been considered unacceptable, whereas the results of the sentences with *ir* prove their acceptability.

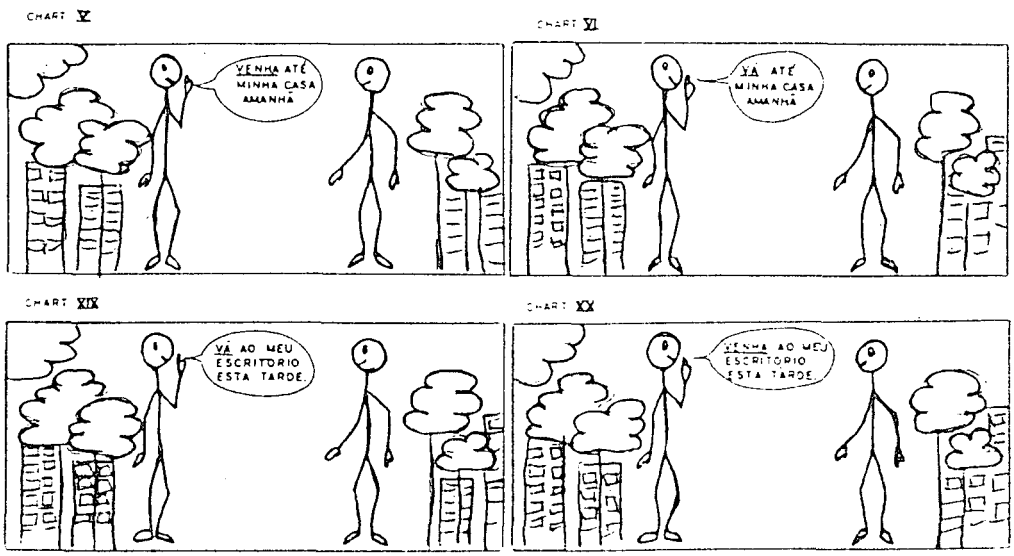
Although the sentences have been based on the example I'll come to see you in Paris, the position of the participants differs from the example to the charts. Linked to the example in English Palmer adds (when you get there), which indicates that the hearer is not in the place of the event (Paris) during the moment of the utterance, even though it is not possible, and probably not relevant, to know where he is. In the charts, however, the hearer's position is indicated by means of a caption. The main difference, therefore, is that in the example in English the movement will be directed towards a place at which the hearer is not in the moment of the utterance but will be in the moment of the event, whereas in the sentences in Portuguese the movement will be directed towards a place at which the hearer is in the moment of the utterance, but might not be in the moment of the event. The speaker, on the other hand, in both cases, is in a place different from the place of the event.

*We are aware of the fact that some grammarians and linguists do not recognize the existence of a *future tense* in English. This issue, however, is out of the scope of the present discussion, and the expression *future tense* is used to refer to the Portuguese verbal tense and not to the English one.

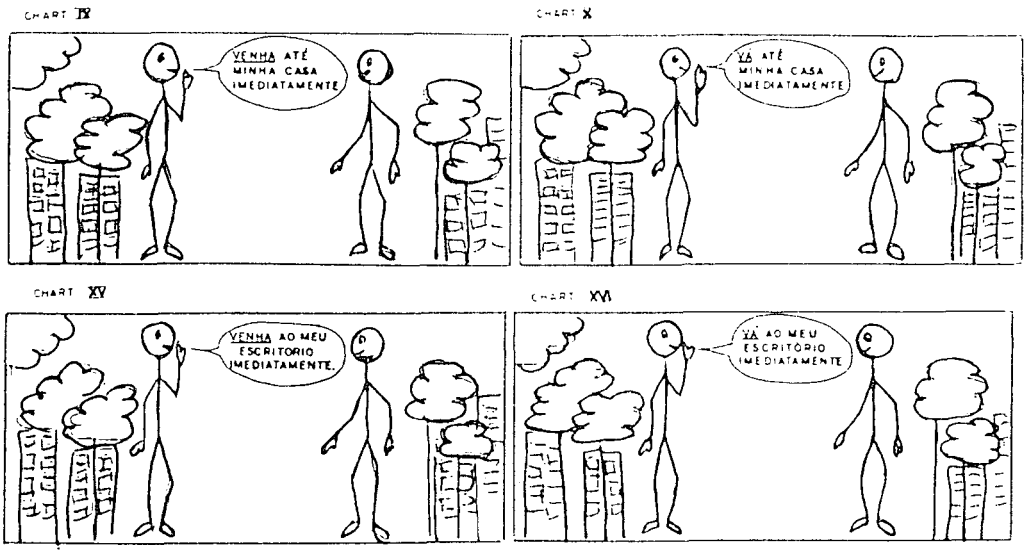
The hypothesis raised in the previous discussion seems to be valid for these charts too; that is, here again the movement is away from the speaker's original position and only the verb *ir* has been accepted by the informants. From the four groups of charts discussed so far, some conclusions can already be drawn, yet it is preferable to study the last two groups and try to explain the general conclusions only after the observation of all specific phenomena.

4.6 DISCUSSION OF CHARTS V, VI, IX, X, XV, XVI, XIX and XX

Although very similar in context, the eight remaining charts (V, VI, IX, X, XV, XVI, XIX and XX) will be divided into two groups in order to facilitate the comparison of the two languages. Group 1 consists of charts V, XX, VI e XIX:



Group 2 is composed by charts IX, XV, X and XVI:



In both groups the hearer is the mover, while the goal of the motion is a place in which the speaker is habitually found. Another aspect they have in common is that at the moment of the utterance the participants are together in a place different from the place of the event. On the other hand, the time of the event is not the same in the two groups: in charts V, XX, VI and XIX, the time identified in the sentence is future, whereas in the second group the adverb imediatamente (immediately) conveys an idea of an action that takes place almost simultaneously with the utterance. In other words, although the event will also follow the production of the sentence it is more closely related with present time than with future. Of course this fact is only relevant when related to the origin of the motion, and the differences between the times of the events are undoubtedly debatable. Nevertheless, our decision in testing the

two types of sentences and in preserving this two-group division is based upon Palmer's discussion in which he interprets these two cases separately, identifying the origin of the motion as a determining factor in the choice of the verb.

Two charts in each of the two groups (charts V, XX, IX and XV) contain several surprising results: the informants have not reached a consensus regarding the acceptability or unacceptability of the sentences with *will*, that is, the null hypothesis has not been rejected in these four sentences and for this reason we shall not move on with this analysis and interpretation until we know what factors have led our informants to express different opinions about the same charts.

Initially it was felt necessary to study the suppositions raised by a number of informants while they were examining the charts. To facilitate such a study the comments have been displayed in Table 6.

A number of explanations are necessary for the understanding of the table below. Clearly in the column labeled Chart one can find the number of the chart to which the columns on the right refer. The column Informant has the number of the informant who made the comment. Answer Given corresponds to the option chosen by the informant.* The line named Supposition presents the comment made by the informant about the chart being discussed; this comment represents

*See Table 1.

TABLE 6

INFORMANTS' SUPPOSITIONS

CHART	INFORMANT	ANSWER GIVEN	SUPPOSITION
III	34	c	The speaker lives in São Paulo.
III	35	a	The speaker does not live in São Paulo.
IX	34	c	The speaker goes along with the hearer.
IX	35	b	Is the speaker at home?
X	34	c	The speaker does not go along with the hearer.
XIII	34	c	The speaker lives in São Paulo.
XV	31	b	Does the speaker go along with the hearer?
XV	32	c	The speaker goes along with the hearer.
XV	34	c	The speaker goes along with the hearer.
XV	35	b	Is the speaker at his office?
XVI	32	c	The speaker does not go along with the hearer.
XVI	34	c	The speaker does not go along with the hearer.
XX	14	b	Is the speaker making an invitation or giving an order?
XX	31	c	The speaker is at the office.
XX	34	c	The speaker will be in the office.

the supposition or condition of adequacy which the informant believes necessary to make his option sensible.

Let us decode the first horizontal line as an example: chart III has been considered acceptable (c) by informant 34 because he *supposes* that the speaker lives in São Paulo, although he was in Curitiba at the moment of the utterance. This assumption, we believe, has implications in the judgement of other charts as well as with the structure of the English language, possibly because of interference of English or other languages upon the informant's judgement.

Our present discussion, however, is concentrating only on charts V, XX, IX and XV, in which the null hypothesis has been accepted; for this reason we shall postpone the analysis of the comments about the other charts, and, for the time being, study only those which do not present a consensus among our informants.

Although nothing has been recorded about chart V, it is possible to study its implications by considering the comments made about chart XX. In observing what has been recorded in the column Supposition, we find that the inability of informant 14 to judge chart XX is related to a condition of adequacy which involves the relation between the participants. This fact leads us back to Austin's theory of speech-acts discussed in Chapter 2 (2.1). The comment made by informant 14 suggests that the use of *vai* in that context is related to the speaker's politeness in making an invitation. It is interesting to observe that this is the only comment directly concerned with the type of social relation between the participants; the other comments are all

related to the context involving the speech act in terms of the participants' position in relation to time and movement. The comments made by informants 31 and 34 about chart XX illustrate this point.

As far as chart XX is concerned, both informants 31 and 34 accepted the sentence concerned as appropriate within that context. They both said, however, that they would have considered it inappropriate if certain aspects of the situation had been explicit in the chart. Informant 31's supposition in answering c is that the speaker is at his office when he produces the utterance, otherwise he would have considered the chart unacceptable. This supposition seems to confirm our hypothesis that the use of *vàn* depends on the motion being directed towards the speaker's location at the moment of the utterance. The comment made by informant 34, on the other hand, is more related to the position of the participants at the time of the relevant event. Considering that charts V and XX are supposed to test the same type of sentences and the same context, the comments discussed about XX are also valid for V.

Our next discussion is about charts IX and XV in neither of which the null hypothesis was rejected. Informant 34 gave the answer c to chart IX because he assumed that the speaker would be going along with the hearer. The answer of informant 35 was blocked by lack of non-linguistic information; for him chart IX would be acceptable if there were a caption explaining that the speaker was at home during the utterance. In both cases the verb *vàn* is acceptable only if the movement is not away from the speaker. Despite the lack

of consistency demonstrated in the results of the analysis about chart XV, the comments show similar opinions about the sentence Venha ao meu escritório imediatamente; according to informants 31, 32, 34 and 35, the acceptability of this chart is directly related to the goal of the motion. Although the pairing charts of IX and XV, namely X and XVI,* have not presented any problems in the final results of the statistical analysis, it is interesting to note that the comments made about them reinforce the aspects pointed out above.

Considering that the ultimate intention of the discussion of the *suppositions* is to identify the reasons which have led the informants to express different opinions about the same charts it would now seem necessary to present a summary of the conclusions drawn. The commentaries suggest that the differences among the informants' opinions are due to the lack of contextual information in the charts which enabled different interpretations and consequently different answers. In fact, the inexistence of captions was premeditated in view of our intention to verify a type of direction which could not be tested if hints about the speaker's position had been given. In other words, we wanted to verify the existence of a factor in Portuguese identified by Palmer as type 3 (DIRECTION TOWARDS A PLACE AT WHICH THE SPEAKER OR HEARER IS HABITUALLY FOUND EVEN IF HE IS NOT THERE AT THE RELEVANT TIME). If such a factor were responsible for the choice of a verb in Portuguese, there would be no need to

*See Annex 1.

explain the context by means of captions, since the use of the noun phrases minha casa (my house) and meu escritório (my office) would be indicating that the direction was TOWARDS A PLACE AT WHICH THE SPEAKER WAS HABITUALLY FOUND. The fact that the informants themselves provided different contexts in order to give an answer shows that Palmer's type 3 is not relevant in Portuguese.

Some might argue, however, that the comments made about charts III and XIII contradict what has been pointed out above. For this reason it is necessary to check whether the informants' different opinions are due to any influence of personal characteristics upon their way of interpreting or using the language; this examination can only be done through the analysis of data collected through the questionnaires.

5 Statistical Analysis of the Questionnaires

5.1 THE QUESTIONNAIRE

In order to investigate whether individual characteristics of the informants would have any influence upon their answers, an analysis has been conducted, based on the data obtained from the questionnaires. In this analysis the *Indecision Alternative* (*b*) has not been eliminated because its choice might have been the result of a certain characteristic of the population and this could then be analysed. We must make it clear that the original questionnaire (presented in Annex 2) given to the informants to fill in, did not have the sequence and form presented below. For the statistical analysis some options have been grouped together and some questions omitted. For instance, the first question asked whether the informant's mother language was Portuguese; its exclusion is due to the fact that this has become a basic requirement, and, when a negative answer was given to this question the informant was immediately rejected.

In the lines below we summarize the questionnaire as it has been analysed.

i. Age

A. from 15 to 25 years old

B. over 25 years old

ii. Level of instruction (the highest level concluded)

A. elementary and/or secondary

B. graduate and/or post-graduate (different from C)

C. graduate and/or post-graduate in linguistics or literature

iii. Occupation

A. elementary school teacher; language teacher; literature teacher

B. other profession

iv. Language spoken at home

A. Portuguese

B. English

C. other language

v. Parents speak other language than/besides Portuguese

A. no

B. yes

vi. Language skills

A. Portuguese (speaking, reading and writing)

B. Portuguese and English (speaking, reading and writing)

C. Portuguese (speaking, reading and writing) English (reading and/or writing)

vii. Keeps in touch with native speakers of English

A. no

B. yes

5.2 CORPUS OF DATA

The following table presents the data collected by means of the questionnaires, relating the number of the informant (1, 2, 3, ...) to the questions (i, ii, iii, ...) and the options (A, B, C) in which the informant has been grouped.

TABLE 7

RESPONSES IN RELATION TO INFORMANTS AND QUESTIONS

QUESTION \ INFORMANT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
i	B	B	B	B	B	B	B	A	B	B	B	B	A	A	B	B	B	A	A	B	A	A	B	B	A	A	B	B	B	B	B	B	B	B	B	B
ii	B	B	C	B	A	B	A	A	B	B	B	B	B	C	C	A	A	A	B	A	A	B	A	B	B	B	B	B	B	B	C	C	C	C	C	C
iii	B	B	B	B	B	A	B	B	B	B	A	B	B	A	A	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A	A	A
iv	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
v	A	A	A	A	A	A	A	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	B	A	A	B	B	B	A	B	A	A	A
vi	B	C	C	C	A	A	A	A	A	C	B	C	A	B	B	A	A	A	A	C	A	A	B	C	A	A	A	C	B	C	B	B	B	B	B	B
vii	A	A	A	A	A	A	A	A	A	A	B	A	A	B	B	A	A	A	A	A	A	A	A	B	A	A	A	B	B	A	B	B	B	B	B	B

In an attempt to simplify the information contained in Table 7, the data can be rearranged in a different table showing the number of informants in relation to questions and alternatives which will give us the frequency of choice of each alternative per question:

TABLE 8

FREQUENCY OF EACH ALTERNATIVE PER QUESTION

QUESTION \ OPTION	A	B	C
i	9	27	X
ii	9	18	9
iii	11	25	X
iv	36	0	0
v	29	7	X
vi	15	12	9
vii	24	12	X*

*C has been crossed out in the questions with only two options (A and B).

5.3 FISHER TEST AND χ^2 TEST

In order to test our hypothesis that there is a correlation between responses and personal characteristics of informants, we have made use of the Fisher test and the χ^2 test for two or k independent samples. The Fisher exact probability test is the appropriate technique for analysing data in 2 x 2 tables, when the number of observations is small. The test is based upon the hypergeometric distribution, which determines the probability of observing a particular set of frequencies in a 2 x 2 table, when the marginal totals are regarded as fixed. In the contingency table which follows

	sample 1	sample 2	
acceptable	A	B	A + B
unacceptable	C	D	C + D
	A + C	B + D	N

the probability of observing this distribution is given by

$$p = \frac{\binom{A+C}{A}\binom{B+D}{B}}{\binom{N}{A+B}}$$

and thus

$$p = \frac{(A+B)!\,(C+D)!\,(A+C)!\,(B+D)!}{N!\,A!\,B!\,C!\,D!} \qquad (1)$$

Since the null hypothesis (H_0) is always related to the occurrence of determined confidence limits or of one even more extreme, it is necessary to sum the probabilities

of the observed case to those resulting from the subtraction of a unit of the lower value in the contingency table until it equals zero, always keeping the marginal totals.

This sum determines the value of p under H_0 which will have to be compared to the level of significance specified for the problem. For the instances where the contingency tables are larger than 2 x 2, the test for two or k independent samples has been used to determine the significance of differences between independent groups. In this test the null hypothesis may be tested by

$$\chi^2 = \sum_{i=1}^{r} \sum_{j=1}^{k} \frac{(Oij - Eij)^2}{Eij}$$

where Oij = observed number of cases categorized in ith row of jth column;

Eij = number of cases expected under H_0 to be categorized in ith row of jth column;

$\sum_{i=1}^{r} \sum_{j=1}^{k}$ directs one to sum over all (r) rows and all (k) columns.

The values of χ^2 yielded by this formula are distributed approximately as chi square with degrees of freedom (df) = (r - 1) (k - 1), where r = the number of rows and k = the number of columns in the contingency table. In order to obtain the expected frequency for each cell (Eij) it is necessary to multiply the marginal totals common to it and then divide this product by the total number of cases (N). The decision about the acceptability of H_0 is done through the comparison of the value obtained by means of the formula

above with the one tabled (from the χ^2 distribution) considering the degrees of freedom and level of significance of the problem. If the computed χ^2 exceeds the table value, the null hypothesis is rejected.

5.4 APPLICATION OF THE FISHER TEST FOR 2 x 2 TABLES

i. Null hypothesis

H_0 = certain characteristics of the informants do not influence their answers. H_1 = the characteristics determine the answers given by the informants.

ii. Statistical test

The Fisher test has been chosen because of the presence of 2 x 2 contingency tables and of a small N.

iii. Significance level

$\alpha = 0,10$. $N = 36$.

iv. Sampling distribution

The probability of the occurrence under H_0 may be found by the use of formula (1).

v. Rejection region.

Since the region of rejection is one-tailed, H_0 will be rejected if the observed p values are of such magnitude that the probability associated with their occurrence under H_0 is equal to or less than $\alpha = 0,10$.

vi. Decision

On the basis of the points stated in the previous items, we have arrived at the results shown in the table below.

TABLE 9

FISHER TEST: INFLUENCE OF CHARACTERISTICS UPON RESPONSES

QUESTION i (Age)

II	A	B	T
a	9	26	35
b	-	1	1
T	9	27	36

p = 0,750
H_0 accepted

IV	A	B	T
a	1	-	1
c	8	27	35
T	9	27	36

p = 0,250
H_0 accepted

VI	A	B	T
a	-	2	2
c	9	25	34
T	9	27	36

p = 0,557
H_0 accepted

VII	A	B	T
a	7	24	31
b	2	3	5
T	9	27	36

P = 0,912
H_0 accepted

XI	A	B	T
a	7	27	34
b	2	-	2
T	9	27	36

p = 0,057
H_0 rejected

XIV	A	B	T
a	-	1	1
c	9	26	35
T	9	27	36

p = 0,750
H_0 accepted

XVII	A	B	T
a	7	26	33
b	2	1	3
T	9	27	36

p = 0,148
H_0 accepted

QUESTION iii (Occupation)

II	A	B	T
a	10	25	35
b	1	-	1
T	11	25	36

p = 0,306
H_0 accepted

IV	A	B	T
a	-	1	1
c	11	24	35
T	11	25	36

p = 0,694
H_0 accepted

VI	A	B	T
a	1	1	2
c	10	24	34
T	11	25	36

p = 0,524
H_0 accepted

VII	A	B	T
a	8	23	31
b	3	2	5
T	11	25	36

p = 0,154
H_0 accepted

XI	A	B	T
a	11	23	34
b	-	2	2
T	11	25	36

p = 0,476
H_0 accepted

XIV	A	B	T
a	-	1	1
c	11	24	35
T	11	25	36

p = 0,694
H_0 accepted

XVII	A	B	T
a	10	23	33
b	1	2	3
T	11	25	36

p = 0,784
H_0 accepted

QUESTION v (Parents' Knowledge of Languages)

II	A	B	T
a	28	7	35
b	1	-	1
T	29	7	36

p = 0,806
H_0 accepted

IV	A	B	T
a	1	-	1
c	28	7	35
T	29	7	36

p = 0,806
H_0 accepted

VI	A	B	T
a	1	1	2
c	28	6	34
T	29	7	36

p = 0,355
H_0 accepted

VII	A	B	T
a	25	6	31
b	4	1	5
T	29	7	36

p = 0,756
H_0 accepted

XI	A	B	T
a	27	7	34
b	2	-	2
T	29	7	36

p = 0,644
H_0 accepted

XIV	A	B	T
a	-	1	1
c	29	6	35
T	29	7	36

p = 0,194
H_0 accepted

XVII	A	B	T
a	27	6	33
b	2	1	3
T	29	7	36

p = 0,910
H_0 accepted

QUESTION vii (Contact with English Speakers)

II	A	B	T
a	24	11	35
b	-	1	1
T	24	12	36

p = 0,333
H_0 accepted

IV	A	B	T
a	1	-	1
c	23	12	35
T	24	12	36

p = 0,667
H_0 accepted

VI	A	B	T
a	1	1	2
c	23	11	34
T	24	12	36

p = 0,562
H_0 accepted

VII	A	B	T
a	22	9	31
b	2	3	5
T	24	12	36

p = 0,195
H_0 accepted

XI	A	B	T
a	22	12	34
b	2	-	2
T	24	12	36

p = 0,438
H_0 accepted

XIV	A	B	T
a	1	-	1
c	23	12	35
T	24	12	36

p = 0,667
H_0 accepted

XVII	A	B	T
a	22	11	33
b	2	1	3
T	24	12	36

p = 0,747
H_0 accepted

Because of the nature of the data (2 x 2 tables), i.e. the tables have two options (A and B) and two answers (*a* and *b*, *a* and c or *b* and c), the Fisher test could only be applied to charts II, IV, VI, VII, XI, XIV and XVII in relation to questions i, iii, v and vii from the questionnaires. The items in the table must be read as follows:

a. the Roman figures refer to the charts;

b. the capital letters stand for the options in the questionnaires;

c. *a*, *b*, c are the responses to the charts;

d. *T* under *a*, *b*, c, presents the total number of informants grouped in each option;

e. *T* to the right of A, B, C, gives the total number of informants per answer;

f. *p* is the final number obtained from the calculations;

g. H_0 is the null hypothesis.

In all the examples in this table H_0 could only be rejected when the calculated p was smaller than 0,10.

5.5 APPLICATION OF THE χ^2 TEST FOR TWO AND k INDEPENDENT SAMPLES

i. Null hypothesis

H_0 = certain characteristics of the informants do not influence their answers. H_1 = certain characteristics determine the answers given by the informants.

ii. Statistical test

The χ^2 test for two or k independent samples has been chosen because the groups under consideration are independent and the data observed consist of frequencies in discrete categories.

iii. Significance level

$\alpha = 0,10$ and $N = 36$.

iv. Sampling distribution

Chi square distribution with $df = (k - 1)\ (r - 1)$.

v. Rejection region

Consists of all values of χ^2 such that the probability associated to its occurrence, under H_0, is not larger than $\alpha = 0,10$. The critical values of χ^2 are given for some significance level and degrees of freedom.

vi. Decision

On the basis of the points stated above, we have arrived at the results shown in Table 10.

A careful consideration of the results of the statistical tests presented on Tables 9 and 10 shows that, in general, the caracteristics analysed have not influenced the informant's opinions about the acceptability of linguistic items presented in the charts, even though in a number of results the null hypothesis has been rejected. Since this hypothesis was discarded, consequently, it is necessary to take up again where we broke off our discussion

TABLE 10

χ^2 TEST: INFLUENCE OF CHARACTERISTICS UPON RESPONSES

(continued)

QUESTION i - AGE

I	A		B		T
a	1	0,25	-	0,75	1
b	-	0,25	1	0,75	1
c	8	8,50	26	25,50	34
T	9		27		36

χ^2 = 3,373 ⇒ accepts H_0

III	A		B		T
a	5	6,75	22	20,25	27
b	2	1,00	2	3,00	4
c	2	1,25	3	3,75	5
T	9		27		36

χ^2 = 2,538 ⇒ accepts H_0

V	A		B		T
a	1	2,50	9	7,50	10
b	3	2,25	6	6,75	9
c	5	4,25	12	12,75	17
T	9		27		36

χ^2 = 1,710 ⇒ accepts H_0

IX	A		B		T
a	3	2,75	8	8,25	11
b	1	1,50	5	4,50	6
c	5	4,75	14	14,25	19
T	9		27		36

χ^2 = 0,270 ⇒ accepts H_0

X	A		B		T
a	-	1,00	4	3,00	4
b	2	0,50	-	1,50	2
c	7	7,50	23	22,50	30
T	9		27		36

χ^2 = 7,378 ⇒ rejects H_0

XIII	A		B		T
a	6	6,25	19	18,75	25
b	2	1,50	4	4,50	6
c	1	1,25	4	3,75	5
T	9		27		36

χ^2 = 0,302 ⇒ accepts H_0

XV	A		B		T
a	2	2,75	9	8,25	11
b	1	1,50	5	4,50	6
c	6	4,75	13	14,25	19
T	9		27		36

χ^2 = 0,934 ⇒ accepts H_0

XVI	A		B		T
a	-	1,00	4	3,00	4
b	1	0,25	-	0,75	1
c	8	7,75	23	23,25	31
T	9		27		36

χ^2 = 4,344 ⇒ accepts H_0

XX	A		B		T
a	4	3,25	9	9,75	13
b	1	2,00	5	6,00	8
c	4	3,75	11	11,25	15
T	9		27		36

χ^2 = 0,920 ⇒ accepts H_0

α = 0,10
df = (r - 1) (k - 1) = 2
critical value of χ^2 = 4,60
se χ^2 > 4,60 ⇒ rejects H_0

QUESTION ii - LEVEL OF EDUCATION

I	A		B		C		T
a	-	0,25	1	0,50	-	0,25	1
b	-	0,25	1	0,50	-	0,25	1
c	9	8,50	16	17,00	9	8,50	34
T	9		18		9		36

χ^2 = 2,118 ⇒ accepts H_0

III	A		B		C		T
a	6	6,75	15	13,50	6	6,75	27
b	1	1,00	3	2,00	-	1,00	4
c	2	1,25	-	2,50	3	1,25	5
T	9		18		9		36

χ^2 = 7,233 ⇒ accepts H_0

V	A		B		C		T
a	2	2,50	6	5,00	2	2,50	10
b	2	2,25	7	4,50	-	2,25	9
c	5	4,25	5	8,50	7	4,25	17
T	9		18		9		36

χ^2 = 7,420 ⇒ accepts H_0

IX	A		B		C		T
a	3	2,75	7	5,50	1	2,75	11
b	-	1,50	5	3,00	1	1,50	6
c	6	4,75	6	9,50	7	4,75	19
T	9		18		9		36

χ^2 = 7,230 ⇒ accepts H_0

X	A		B		C		T
a	-	1,00	3	2,00	1	1,00	4
b	-	0,50	2	1,00	-	0,50	2
c	9	7,50	13	15,00	8	7,50	30
T	9		18		9		36

χ^2 = 4,100 ⇒ accepts H_0

XIII	A		B		C		T
a	7	6,25	14	12,50	4	6,25	25
b	1	1,50	3	3,00	2	1,50	6
c	1	1,25	1	2,50	3	1,25	5
T	9		18		9		36

χ^2 = 4,813 ⇒ accepts H_0

XV	A		B		C		T
a	1	2,75	9	5,50	1	2,75	11
b	-	1,50	3	3,00	3	1,50	6
c	8	4,75	6	9,50	5	4,75	19
T	9		18		9		36

χ^2 = 10,981 ⇒ rejects H_0

XVI	A		B		C		T
a	1	1,00	2	2,00	1	1,00	4
b	1	0,25	-	0,50	-	0,25	1
c	7	7,75	16	15,50	8	7,75	31
T	9		18		9		36

χ^2 = 3,097 ⇒ accepts H_0

XX	A		B		C		T
a	2	3,25	9	6,50	2	3,25	13
b	1	2,00	5	4,00	2	2,00	8
c	6	3,75	4	7,50	5	3,75	15
T	9		18		9		36

χ^2 = 5,073 ⇒ accepts H_0

α = 0,10
df = (3 - 1) (3 - 1) = 4
critical value of χ^2 = 7,78

TABLE 10

χ^2 TEST: INFLUENCE OF CHARACTERISTICS UPON RESPONSES

(cont.)

II	A		B		C		T
a	9	8,75	18	17,50	8	8,75	35
b	-	0,25	-	0,50	1	0,25	1
T	9		18		9		36

χ^2 = 3,086 ➡ accepts H_0

IV	A		B		C		T
a	1	0,25	-	0,50	-	0,25	1
c	8	8,75	18	17,50	9	8,75	35
T	9		18		9		36

χ^2 = 3,086 ➡ accepts H_0

VI	A		B		C		T
a	1	0,50	-	1,00	1	0,50	2
c	8	8,50	18	17,00	8	8,50	34
T	9		18		9		36

χ^2 = 2,118 ➡ accepts H_0

VII	A		B		C		T
a	8	7,75	17	15,50	6	7,75	31
b	1	1,25	1	2,50	3	1,25	5
T	9		18		9		36

χ^2 = 3,948 ➡ accepts H_0

XI	A		B		C		T
a	8	8,50	17	17,00	9	8,50	34
b	1	0,50	1	1,00	-	0,50	2
T	9		18		9		36

χ^2 = 1,059 ➡ accepts H_0

XIV	A		B		C		T
a	-	0,25	1	0,50	-	0,25	1
c	9	8,75	17	17,50	9	8,75	35
T	9		18		9		36

χ^2 = 1,029 ➡ accepts H_0

XVII	A		B		C		T
a	8	8,25	17	16,50	8	8,25	33
b	1	0,75	1	1,50	1	0,75	3
T	9		18		9		36

χ^2 = 0.364 ➡ accepts H_0

α = 0,10
df = (2 - 1) (3 - 1) = 2
critical value of χ^2 = 4,60

QUESTION iii - PROFESSION

I	A		B		T
a	-	0,31	1	0,69	1
b	-	0,31	1	0,69	1
c	11	10,38	23	23,62	34
T	11		25		36

χ^2 = 0,932 ➡ accepts H_0

III	A		B		T
a	8	8,25	19	18,75	27
b	-	1,22	4	2,78	4
c	3	1,53	2	3,47	5
T	11		25		36

χ^2 = 3,814 ➡ accepts H_0

V	A		B		T
a	5	3,06	5	6,94	10
b	-	2,75	9	6,25	9
c	6	5,19	11	11,81	17
T	11		25		36

χ^2 = 5,922 ➡ rejects H_0

IX	A		B		T
a	3	3,36	8	7,64	11
b	1	1,83	5	4,17	6
c	7	5,81	12	13,19	19
T	11		25		36

χ^2 = 0,955 ➡ accepts H_0

X	A		B		T
a	2	1,22	2	2,78	4
b	-	0,61	2	1,39	2
c	9	9,17	21	20,83	30
T	11		25		36

χ^2 = 1,597 ➡ accepts H_0

XIII	A		B		T
a	6	7,64	19	17,36	25
b	2	1,83	4	4,17	6
c	3	1,53	2	3,47	5
T	11		25		36

χ^2 = 2,571 ➡ accepts H_0

XV	A		B		T
a	3	3,36	8	7,64	11
b	3	1,83	3	4,17	6
c	5	5,81	14	13,19	19
T	11		25		36

χ^2 = 1,286 ➡ accepts H_0

XVI	A		B		T
a	2	1,22	2	2,78	4
b	-	0,31	1	0,69	1
c	9	9,47	22	21,53	31
T	11		25		36

χ^2 = 1,187 ➡ accepts H_0

XX	A		B		T
a	4	3,97	9	9,03	13
b	2	2,44	6	5,56	8
c	5	4,58	10	10,42	15
T	11		25		36

χ^2 = 0.171 ➡ accepts H_0

α = 0,10
df = (3 - 1) (2 - 1) = 2
critical value of χ^2 = 4,60

TABLE 10

χ^2 TEST: INFLUENCE OF CHARACTERISTICS UPON RESPONSES

(cont.)

QUESTION v - PARENTS' KNOWLEDGE OF LANGUAGES

I	A		B		T
a	1	0.81	-	0.19	1
b	-	0.81	1	0.19	1
c	28	27.38	6	6.62	34
T	29		7		36

χ^2 = 4.454 ➡ accepts H_0

III	A		B		T
a	22	21.75	5	5.25	27
b	3	3.22	1	0.78	4
c	4	4.03	1	0.97	5
T	29		7		36

χ^2 = 0.095 ➡ accepts H_0

V	A		B		T
a	5	5.06	2	1.94	7
b	5	7.25	1	2.75	6
c	19	16.69	4	6.31	23
T	29		7		36

χ^2 = 0.582 ➡ accepts H_0

IX	A		B		T
a	10	8.86	1	2.14	11
b	5	4.83	1	1.17	6
c	14	15.31	5	3.69	19
T	29		7		36

χ^2 = 1.355 ➡ accepts H_0

X	A		B		T
a	1	3.22	3	0.78	4
b	2	1.61	-	0.39	2
c	26	21.17	4	5.83	30
T	29		7		36

χ^2 = 9.080 ➡ rejects H_0

XIII	A		B		T
a	19	20.14	6	4.86	25
b	6	4.83	-	1.17	6
c	4	4.03	1	0.97	5
T	29		7		36

χ^2 = 1.780 ➡ accepts H_0

XV	A		B		T
a	10	8.86	1	2.14	11
b	3	4.83	3	1.17	6
c	16	15.31	3	3.69	19
T	29		7		36

χ^2 = 3.491 ➡ accepts H_0

XVI	A		B		T
a	2	3.22	2	0.78	4
b	1	0.81	-	0.19	1
c	26	24.97	5	6.03	31
T	29		7		36

χ^2 = 2.843 ➡ accepts H_0

XX	A		B		T
a	10	10.47	3	2.53	13
b	7	6.44	1	1.56	8
c	12	12.09	3	2.91	15
T	29		7		36

χ^2 = 0.559 ➡ accepts H_0

α = 0.10
df = (3 - 1) (2 - 1) = 2
critical value of χ^2 = 4.60

QUESTION vi - INFORMANTS' KNOWLEDGE OF LANGUAGES

I	A		B		C		T
a	1	0.42	-	0.33	-	0.25	1
b	-	0.42	1	0.33	-	0.25	1
c	14	14.16	11	11.34	9	8.50	34
T	15		12		9		36

χ^2 = 3.441 ➡ accepts H_0

III	A		B		C		T
a	11	11.25	9	9.00	7	6.75	27
b	2	1.67	1	1.33	1	1.00	4
c	2	2.08	2	1.67	1	1.25	5
T	15		12		9		36

χ^2 = 0.285 ➡ accepts H_0

V	A		B		C		T
a	4	4.17	4	3.33	2	2.50	10
b	3	3.75	3	3.00	3	2.25	9
c	8	7.08	5	5.67	2	4.25	17
T	15		12		9		36

χ^2 = 0.705 ➡ accepts H_0

IX	A		B		C		T
a	6	4.58	3	3.67	2	2.75	11
b	1	2.50	2	2.00	3	1.50	6
c	8	7.92	7	6.33	4	4.75	19
T	15		12		9		36

χ^2 = 3.353 ➡ accepts H_0

X	A		B		C		T
a	1	1.67	2	1.33	1	1.00	4
b	1	0.83	-	0.67	1	0.50	2
c	13	12.50	10	10.00	7	7.50	30
T	15		12		9		36

χ^2 = 1.853 ➡ accepts H_0

XIII	A		B		C		T
a	13	10.42	6	8.33	6	6.25	25
b	1	2.50	2	2.00	3	1.50	6
c	1	2.08	4	1.67	-	1.25	5
T	15		12		9		36

χ^2 = 8.784 ➡ rejects H_0

XV	A		B		C		T
a	5	4.58	2	3.67	4	2.75	11
b	1	2.50	3	2.00	2	1.50	6
c	9	7.92	7	6.33	3	4.75	19
T	15		12		9		36

χ^2 = 3.793 ➡ accepts H_0

XVI	A		B		C		T
a	1	1.64	3	1.33	-	1.00	4
b	1	0.42	-	0.33	-	0.25	1
c	13	12.91	9	10.34	9	7.75	31
T	15		12		9		36

χ^2 = 5.114 ➡ accepts H_0

XX	A		B		C		T
a	5	5.42	5	4.33	3	3.25	13
b	5	3.75	2	3.00	1	2.25	8
c	5	5.83	5	4.67	5	3.50	15
T	15		12		9		36

χ^2 = 1.094 ➡ accepts H_0

α = 0.10
df = (3 - 1) (3 - 1) = 4
critical value of χ^2 = 7.78

TABLE 10

χ^2 TEST: INFLUENCE OF CHARACTERISTICS UPON RESPONSES

(cont.)

II	A		B		C		T
a	15	14,58	11	11,67	9	8,75	35
b	-	0,42	1	0,33	-	0,25	1
T	15		12		9		36

χ^2 = 2,057 ⇒ accepts H_0

IV	A		B		C		T
a	1	0,42	-	0,33	-	0,25	1
c	14	14,58	12	11,67	9	8,75	35
T	15		12		9		36

χ^2 = 1,440 ⇒ accepts H_0

VI	A		B		C		T
a	-	0,83	2	0,67	-	0,50	2
c	15	14,17	10	11,33	9	8,50	34
T	15		12		9		36

χ^2 = 4,235 ⇒ accepts H_0

VII	A		B		C		T
a	13	12,92	9	10,33	9	7,75	31
b	2	2,08	3	1,67	-	1,25	5
T	15		12		9		36

χ^2 = 2,694 ⇒ accepts H_0

XI	A		B		C		T
a	14	14,17	12	11,33	8	8,50	34
b	1	0,83	-	0,67	1	0,50	2
T	15		12		9		36

χ^2 = 1,271 ⇒ accepts H_0

XIV	A		B		C		T
a	1	0,42	-	0,33	-	0,25	1
c	14	14,58	12	11,67	9	8,75	35
T	15		12		9		36

χ^2 = 1,440 ⇒ accepts H_0

XVII	A		B		C		T
a	13	13,75	11	11,00	9	8,25	33
b	2	1,25	1	1,00	-	0,75	3
T	15		12		9		36

χ^2 = 1,309 ⇒ accepts H_0

α = 0,10
df = (2 - 1) (3 - 1) = 2
critical value of χ^2 = 4,60

QUESTION vii - CONTACT WITH NATIVE SPEAKERS OF ENGLISH

I	A		B		T
a	1	0,67	-	0,33	1
b	-	0,67	1	0,33	1
c	23	22,66	11	11,34	34
T	24		12		36

χ^2 = 2,515 ⇒ accepts H_0

III	A		B		T
a	19	18,00	8	9,00	27
b	3	2,67	1	1,33	4
c	2	3,33	3	1,67	5
T	24		12		36

χ^2 = 1,892 ⇒ accepts H_0

V	A		B		T
a	6	6,67	4	3,33	10
b	8	6,00	1	3,00	9
c	10	11,33	7	5,67	17
T	24		12		36

χ^2 = 2,671 ⇒ accepts H_0

IX	A		B		T
a	8	7,33	3	3,67	11
b	4	4,00	2	2,00	6
c	12	12,67	7	6,33	19
T	24		12		36

χ^2 = 0,287 ⇒ accepts H_0

X	A		B		T
a	2	2,67	2	1,33	4
b	2	1,33	-	0,67	2
c	20	20,00	10	10,00	30
T	24		12		36

χ^2 = 1,500 ⇒ accepts H_0

XIII	A		B		T
a	18	16,67	7	8,33	25
b	4	4,00	2	2,00	6
c	2	3,33	3	1,67	5
T	24		12		36

χ^2 = 1,920 ⇒ accepts H_0

XV	A		B		T
a	8	7,33	3	3,67	11
b	2	4,00	4	2,00	6
c	14	12,67	5	6,33	19
T	24		12		36

χ^2 = 3,603 ⇒ accepts H_0

XVI	A		B		T
a	2	2,67	2	1,33	4
b	1	0,67	-	0,33	1
c	21	20,66	10	10,34	31
T	24		12		36

χ^2 = 1,016 ⇒ accepts H_0

XX	A		B		T
a	8	8,67	3	4,33	11
b	5	5,33	3	2,67	8
c	11	10,00	4	5,00	15
T	24		12		36

χ^2 = 0,516 ⇒ accepts H_0

α = 0,10
df = (3 - 1) (2 - 1) = 2
critical value of χ^2 = 4,60

of the results of the charts to investigate the influence of the informants' characteristics upon their responses, and, from that point on, try to classify the factors which determine the choice of *ir* or *vir* in particular contexts.

6 Final Discussion

6.1 SYSTEMATIZATION OF THE USES OF *IR* AND *VIR*

In order to achieve our objective of classifying the factors which determine the choice of *ir* or *vir*, it will be necessary to take bearings from the following variables: *mover*, *direction*, *origin*, *goal* and *time*, and analyse all these variables in connection with the circumstances presented in each chart. The context will be presented in the form of diagrams within Table 11 and the variables must be understood as follows:

mover: can be one of the participants, either the hearer (h) or the speaker (sp), or a third person (3rdp) either singular or plural;

origin: is related to *movement away from* a place or from the position of a participant or a third person;

goal: is related to *movement towards* a place or position of a participant or a third person;

time: can be either the moment of the utterance (ut) or the moment of the event (ev).

Mention will also be made to the place where the participants are habitually found ('s pl).

Since some of the charts present the same results after different combinations of variants we shall have only seven different diagrams. Chart I can be seen as an exception since two diagrams will be needed in order to account for the different types of association presented in each of the two sentences, for this reason Vem cá will be identified as Ia and Estou indo as Ib. The purpose of the diagrams is, therefore, to summarize the context present in each of the accepted charts.

TABLE 11

SET OF CONTEXTUAL VARIANTS IN RELATION TO UTTERANCES UNDER ANALYSIS

VARIABLES / CHARTS	TIME	MOVER	ORIGIN	GOAL
Ia	ut ev	h h	h h	sp sp
Ib	ut/ev	sp	sp	h
XII	ev ut	sp sp	sp/h sp/h	h's pl
IV, XIV	ev ut	3rdp 3rdp	h/3rdp sp/h	sp
VIII, XVIII	ut ev	sp sp	sp sp	h h
VI, XIX	ut ev	h h	sp/h sp/h	sp's pl
X, XVI	ut ev	h h	sp/h sp/h	sp's pl

The reader must have noticed that only ten charts have been represented in diagrams; the reason is that those coined unacceptable or doubtful could not be included in this analysis, although they may be useful later to support our arguments.

In order to find the determining factors of the choice of *ir* rather than *vir* and vice versa, it is necessary to observe each variable isolated from the context but in comparison with the other diagrams. In the first place we can observe that the variable *mover* by itself is not a relevant factor since both hearer and speaker can be the movers in sentences with *vir* or *ir*. Even the 3rd person cannot be said to be a determinant for *ir* because the sentences Ele veio me visitar hoje, Eles costumam vir aqui todos os dias, Ela virá para Curitiba na próxima semana, etc. are undoubtedly acceptable examples of *vir* in which the mover is a third person. Following our discussion on page 67 another variable which cannot be said to be relevant in the choice of verbs is *the place at which the participants are habitually found* since it has not been identified as a determining factor in the Portuguese language.

The variables *time*, *goal* and *origin*, when analysed separately cannot be considered relevant either, since they appear both in examples with *vir* and with *ir*. Consequently it is the association of *origin* with *time*, and *goal* with *time*, together with the type of *direction*, which will determine the use of *vir* or *ir*. Therefore, the eight combinations of variants classified below will have to be considered:

1st) movement *towards* the *hearer* at the moment of *event* (ir)

2nd) movement *towards* the *hearer* at the moment of *utterance* (ir)

3rd) movement *towards* the *speaker* at the moment of *event* (vir, ir)

4th) movement *towards* the *speaker* at the moment of *utterance* (vir)

5th) movement *away from* the *hearer* at the moment of *event* (vir, ir)

6th) movement *away from* the *hearer* at the moment of *utterance* (vir, ir)

7th) movement *away from* the *speaker* at the moment of *event* (ir)

8th) movement *away from* the *speaker* at the moment of *utterance* (ir)

In the following lines each combination is related to the chart or the charts in which it appears.

1st) Ib, VIII, XVIII

2nd) Ib, VIII, XVIII

3rd) Ia, IV, XIV

4th) Ia

5th) Ia, XII, IV, XIV, VI, XIX, X, XVI

6th) Ia, XII, IV, XIV, VI, XIX, X, XVI

7th) Ib, XII, VIII, XVIII, VI, XIX, X, XVI

8th) Ib, XII, IV, XIV, VIII, XVIII, VI, XIX, X, XVI

By considering the results of the diagrams one can see that the combination containing *movement towards the speaker at the moment of the utterance* is present only in chart Ia where the use of *vir* has been considered acceptable. Similarly, *movement away from the speaker at the moment of the utterance* is present in all the charts but Ia. This seems to be the final evidence regarding the main factor to determine the paradigmatical choice of *vir* or *ir*, which

confirms the hypothesis raised in the introduction of this dissertation where mention was made to these movements as responsible for the uses of the verbs in question.

The conclusion we can draw is that in Portuguese the use of the verb *ir* is directly associated with the fact that in the sentence in which the verb is used, reference is being made to a kind of direction whereby the *mover moves away from the place where the speaker is at the moment of the utterance*. The choice of the verb *vir*, on the other hand, is related to a description of a *movement in the direction of the place where the speaker is at the moment of the utterance*. In other words, the main factor is the *speaker's present location*; if the movement is away from it, the verb *ir* is to be preferred whereas if the movement is towards it, the choice is for *vir*. Of course we have not included all possible occurrences of *ir* and *vir* in Portuguese, so the general rule just mentioned is to be applied only within the limits of this work. The diagrams have presented other factors related to one verb or the other, which have been summarized, within the combinations of variants; these are to be considered *secondary uses*.

6.2 COMPARISON OF *COME/GO* WITH *IR/VIR*

In order to draw conclusions about the differences and similarities between the use of *come/go* and *ir/vir* it is necessary to study the sentences from each chart together with the corresponding sentence in English. We believe it

practical to start out this comparison by analysing the diagrams used for the sentences in Portuguese introducing a box which indicates which verb is most liable to be used in each language under the situation in question.

DIAGRAM 1

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
vir/come	ut/ev	h	h	sp

Diagram 1 accounts for the sentences Vem cá and Come here. It shows us that in a context where both at the time of the utterance and at the time of the event the hearer moves away from his original position and in the direction of the speaker the verb *vir* and *come* would be chosen in Portuguese and in English respectively.

DIAGRAM 2

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/come	ut/ev	sp	sp	h

Diagram 2 refers to the sentences Estou indo and I'm coming. It presents a context where the mover is the speaker and the motion is directed towards the hearer both during the event and the utterance. The origin of the motion in this situation is the speaker's location.

If we compare this diagram with the previous one we will detect certain differences between them. The first one being the use of the verbs: while in the previous diagram *come* was associated with *vir*, here we find *come* and *ir* used in the same situation.

At this point we find it worth referring to the entries *come*, *go*, *ir* and *vir* from certain English-Portuguese and Portuguese-English dictionaries. MICHAELIS, for instance, presents this information: "*come* 1. vir, aproximar (-se) 2. chegar 3. aparecer, surgir (....) I'm coming - estou indo"[1]. Oswaldo SERPA also translates *come* as *vir*, *go* as *ir*, *ir* as *go*, and *vir* as *come*.[2] The same is true for Leonel VALLANDRO's *Dicionário Escolar*;[3] Álvaro FRANCO's *Dicionário Inglês-Português, Português-Inglês*,[4] and several others. Some dictionaries and reference books try to explain the meaning of these verbs by providing instances of their uses but they do not succeed in covering all the possibilities. Such is the case of *An International Reader's Dictionary* by Michael WEST in which one finds: "*come* (1) move in the direction of the speaker; arrive (....)"[5]. Michael SWAN's *Practical English Usage* also provides explanations which can help a teacher or a student who seeks for an answer on this subject.[6] It does not, however, account for all the problems we have been dealing with. On page 141,

SWAN conducts a brief discussion on paradigmatical problems in the choice of either *come* or *go*. He points out some deviant sentences under the subtitle "Typical Mistakes":

> Maria, would you come here a moment?
> *Yes, OK, I'm *going*.
> Thanks for a lovely evening. I must go now or I won't *come* home before midnight.
> *I *went* here yesterday but you weren't in.

SWAN accepts the difficulty in the choice of these verbs but he does not give any answer to the problem. In fact, we can sense a certain degree of uncertainty on the part of the author, probably for want of a deeper theoretical basis. SWAN goes on:

> It is not easy to choose correctly between *come* and *go*. In general, *come* is used for a movement to the place where the speaker or listener is, and *go* is used for other movements. (p.141)

And he exemplifies:

> *Come* here! When did you *come* to live here? Can I *come* and see you?
>
> *Go* away! I want to *go* and live in Greece. Let's *go* and see Peter and Diane. (p.141)

One can easily feel both through the examples and through his explanations a certain amount of vagueness since the author uses "*go* is used for other movements" but he does not explain which "other movements" he is referring to; and even if these "other movements" are interpreted as movements

*The sentences preceded by an asterisc should be interpreted as semantically deviant or ungrammatical.

other than those "towards the place where the speaker or listener is" we still cannot solve problems such as the sentence I came to your house but you weren't there since the motion is neither towards the place where the speaker or listener are, nor is it towards a place where the speaker or listener were or will be. In fact the example mentioned by Swan as semantically deviant, namely "I went here yesterday but you weren't in" seems to sound more awkward because of the proximity of the verb *go* to the adverbial *here* which seem to be in a semantic opposition. We believe that it is the word *here* which is responsible for the opposition with *go*, and not the idea of the movement being away from the place where speaker or listener are at the moment of the utterance.

It is understandable that reference books do not analyse this topic for this is a lexical problem and the lexicon is of dictionary makers' concern and not of grammarians'.

DIAGRAM 3

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/come	ev	sp	sp/h	h's pl
	ut	sp	sp/h	

Diagram 3 covers the sentences Eu fui até sua casa mas você não estava and I came to your house (but you were out). Here again the verbs *ir* and *come* are set side by side in the

diagram indicating that they are to be preferred within a situation in which, at the moment of the event, the speaker moves away from the place where the hearer and himself are, and in the direction of the place where the hearer is habitually found.

DIAGRAM 4

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/come	ev	3rdp	h/3rdp	sp
	ut	3rdp	sp/h	

The fourth diagram also brings the verbs *ir* at the side of *come*. In these examples: Ele foi me visitar em São Paulo, Ele foi me ver quando eu estava em São Paulo, and He came to me in London, the mover is a third person and the goal of the motion is only known at the moment of the event which is in fact the relevant moment. With respect to the moment of the utterance the movement is away from the participants. According to PALMER the use of *come* in this case is determined by the fact that the motion is directed towards the speaker at a relevant moment.[7] Moreover, it has been discussed in the previous chapter that in Portuguese this movement, which has been identified as the third one in the diagrams, is only a secondary use since it is mainly the moment of the utterance which determines the use of the verb.

DIAGRAM 5

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/come	ut	sp	sp	h
	ev	sp	sp	h

The diagram just above accounts for the sentences Pode ser que eu vá para Curitiba no fim de semana, Eu creio que irei para Curitiba na próxima semana, I'll come to see you in Paris when you get there and I'll come to the shop tonight. The reader must have noticed that this diagram presents the same combination of variants as that of the second one; the only difference being that in this example the event will occur after the utterance whereas in diagram two the event and the utterance are simultaneous. Of course, as we have mentioned before, the sentence I'll come to see you in Paris when you get there does not explicitate the hearer's position at the moment of the utterance.

DIAGRAM 6

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/come/go	ut	h	sp/h	
	ev	h	sp/h	sp's pl

In Diagram 6 one may see three verbs filling the box. The reason is that, according to PALMER, the situation exposed in this diagram allows for the use of two verbs in

English.[8] The primary choice being for *come* and the secondary one for *go*. In other words, although the verb *come* is to be preferred in this context, the verb *go* is also acceptable. In Portuguese, however, only the verb *ir* has been coined acceptable. It is important to emphasize that according to PALMER the determinant factor here is the direction of the movement at the moment of the event.[9] Nevertheless, in Portuguese, there has been no evidence to prove that this is a determinant. What we can say about the choice for *ir* here is that again the motion is directed away from the position of the speaker at the moment of the utterance.

DIAGRAM 7

VARIABLES / VERBS	TIME	MOVER	ORIGIN	GOAL
ir/go	ut	h	sp/h	
	ev	h	sp/h	sp's pl

In contrast with the previous diagrams in which the *ir* in Portuguese corresponded to *come* in English, the last diagram shows *ir* corresponding to *go*. According to PALMER the determining factor in this context is that although the goal is the place at which the speaker is habitually found, it is the origin of the motion which determines the use of *go*, as discussed on page 27.[10]

On the basis of the comparison just made some points must be emphasized. First of all, unlike English, the mentioning of a habitual place does not determine the choice of verbs in Portuguese.

Secondly, it has been shown that in Portuguese the use of the verb *ir* is directly related to what has been identified as the 8th movement, on page 87. Moreover, despite what the bilingual dictionaries state as the translation for these verbs, we find that *come* can be translated as *ir* and vice-versa. We believe that the case of the second diagram should be viewed as a special case since the sentence I'm coming is considered an idiomatic expression in some dictionaries.

The *8th movement* which is here the first factor in our hierarchical order should be considered as the determinant which is constant in all the samples and further research could be done in order to check the significance of the variable frequency of the other movements registered in the sense that some of them might be in the state of changing the system.

NOTES

[1] NOVO Michaelis Dicionário Ilustrado. 24.ed. São Paulo, Melhoramentos, 1979. v.1, p.210. In this dictionary I'm coming is considered an idiomatic expression.

[2] SERPA, O. *Dicionário Escolar Inglês-Português, Português-Inglês*. 6.ed. Rio de Janeiro, FENAME, 1969. p.131-2, 299-300, 1082, 1092.

[3] VALLANDRO, L. *Dicionário Escolar Inglês-Português e Português-Inglês*. Porto Alegre, Globo, 1967. p.104-5, 219, 803-4, 974.

[4] FRANCO, A. *Dicionário Inglês-Português, Português-Inglês.* 26.ed. Porto Alegre, Globo, 1967. p.78, 180, 784, 951.

[5] WEST, M. *An International Reader's Dictionary.* London, Longman, 1970. p.73.

[6] SWAN, M. *Practical English Usage.* Oxford, Oxford University Press, 1982.

[7] PALMER, F. *Semantics*, a new outline. Cambridge, Cambridge University Press, 1976. p.84.

[8] PALMER, p.84.

[9] PALMER, p.84.

[10] PALMER, p.84.

7 Conclusion

Before we present the final conclusions of our study it is necessary to emphasize that the results obtained after this research are valid for the data collected for this dissertation, and that any generalization made here can be applied provided the limitations of this work are respected.

In short, the factors which determine the paradigmatical choice of *come* rather than *go* are not the same as those which determine the use of *ir* rather than *vir*. While in English *come* is determined by the GOAL of the movement and *go* by the ORIGIN, in Portuguese the determining factor is the SPEAKER's LOCATION AT THE MOMENT OF THE UTTERANCE. Of course one might still argue that in a way in Portuguese *vir* is also determined by the GOAL since it is the *movement towards the speaker* which imposes its use, and that *ir* is determined by the ORIGIN since its choice is directly related to *movement away from the speaker's position*. The main difference between the two languages, however, is that while in Portuguese only the speaker is being considered the most relevant element, in English any of the participants or even a place at which they are habitually found can be relevant in the choice of the verb.

On the basis of this description further studies could be carried out aiming at transforming these

rules into practical instructions for teaching English to speakers of Portuguese as well as for teaching Portuguese to speakers of English, in order to avoid misunderstandings such as the one between the Englishman and his Brazilian friend presented in the Introduction of this dissertation.

ANNEXES

ANNEX 1

CHART I

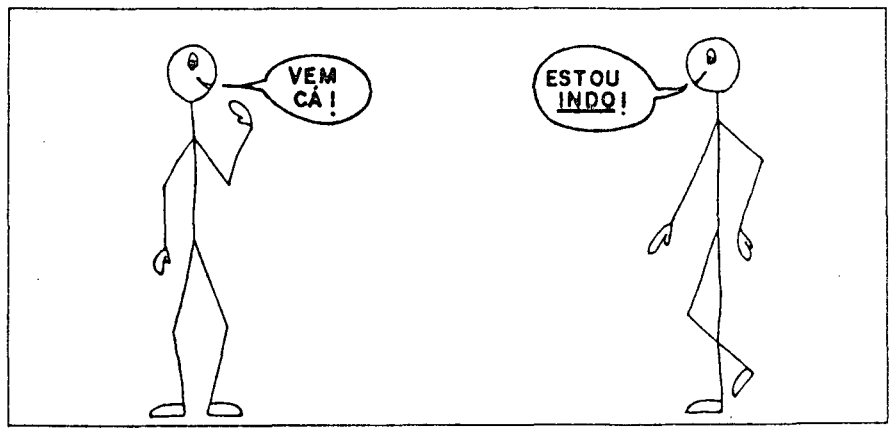


CHART II

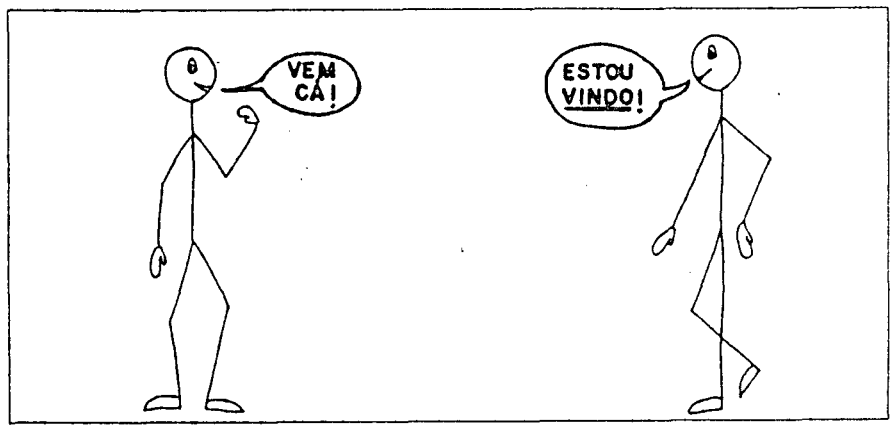


CHART III

CHART IV

CHART V

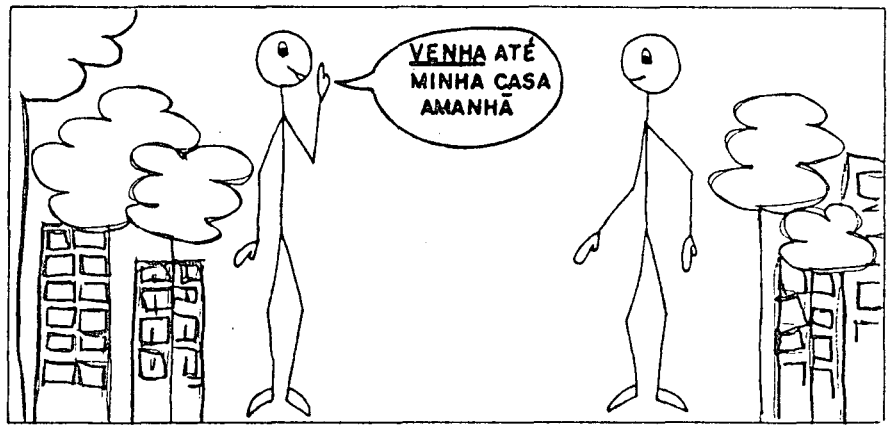


CHART VI

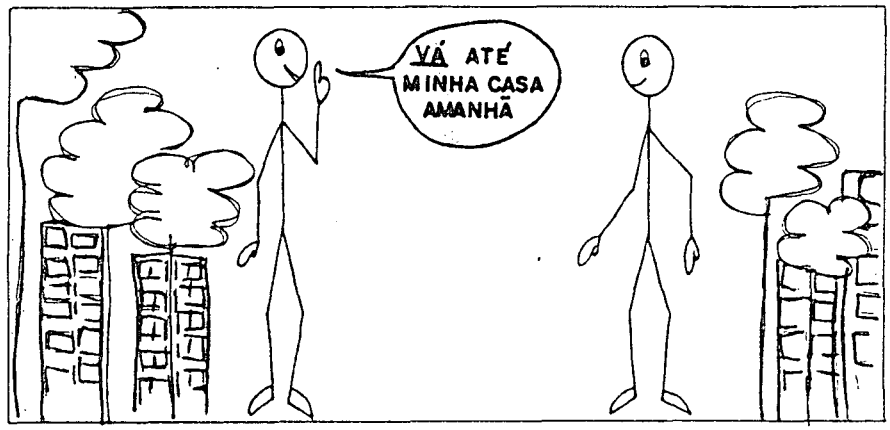


CHART VII

CHART VIII

CHART IX

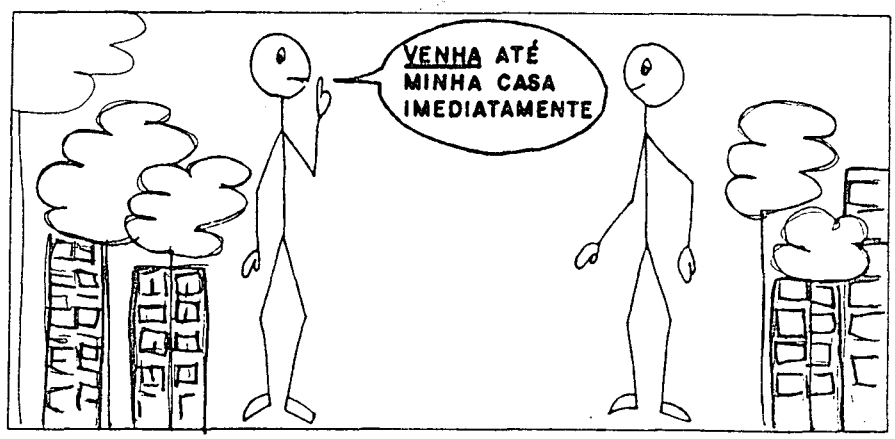


CHART X

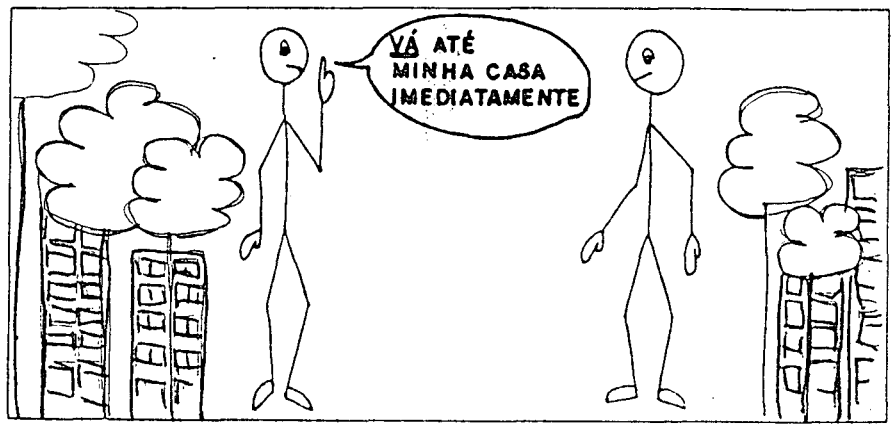


CHART XI

CHART XII

CHART XIII

CHART XIV

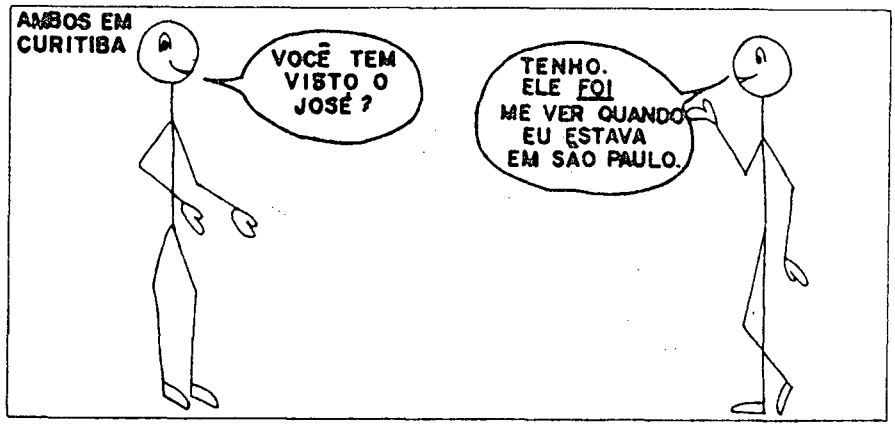


CHART XV

CHART XVI

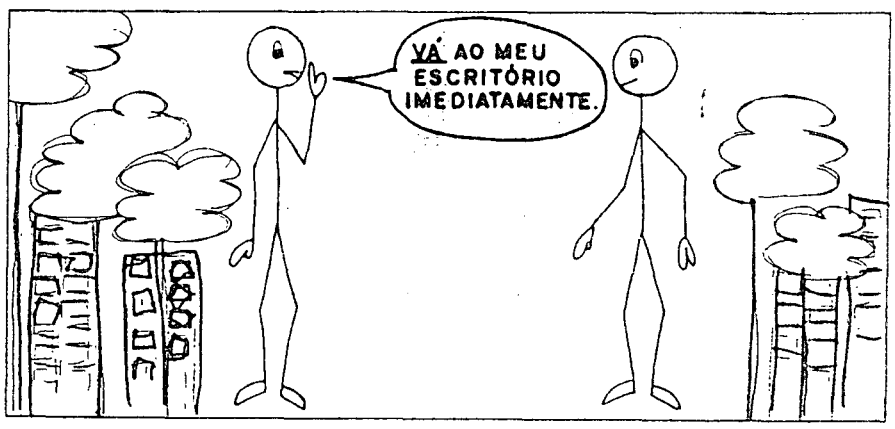


CHART XVII

CHART XVIII

CHART XIX

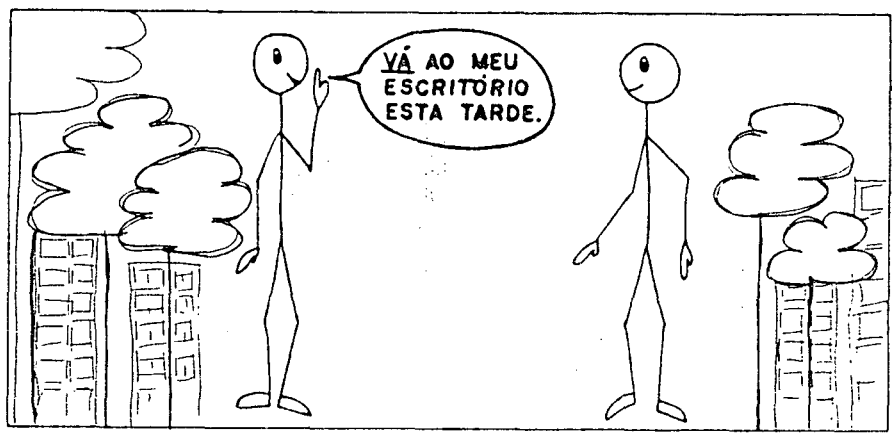
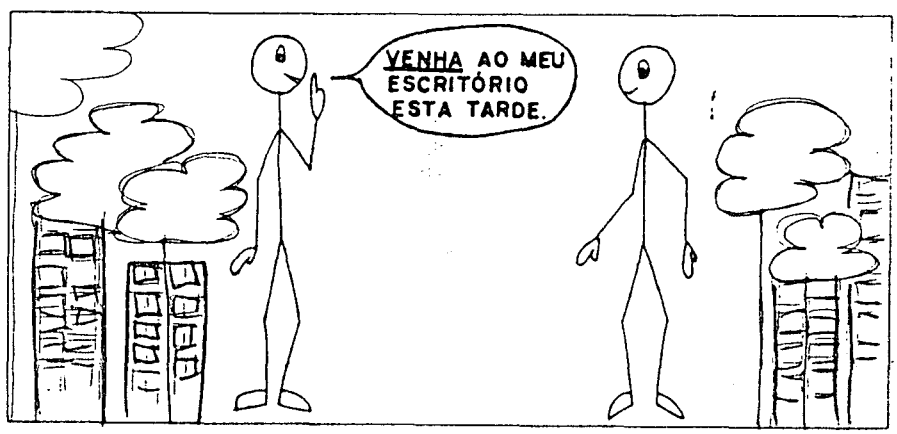


CHART XX



Jane M.S. Bodnar

ANNEX 2: DADOS DO INFORMANTE

1. A língua portuguesa é sua língua materna? Sim ( ) Não ( )

Se a resposta da questão 1 for negativa não continue o questionário.

2. Idade: de 15 a 25 ( )
de 26 a 35 ( )
de 36 a 45 ( )
de 46 a 55 ( )
mais de 55 ( )

3. Grau de instrução (indique apenas o nível mais elevado que já tiver sido concluído):

Primário ( )
Secundário ( )
Superior ( ) Curso de Letras? Sim ( ) Não ( )
Outro? Qual? _____
Pós-Universitário ( ) Curso de Letras? Sim ( ) Não ( )
Outro? Qual? _____

4. Profissão:

Professor de Ensino Primário? Sim ( ) Não ( )
Professor de Língua ou Literatura? Sim ( ) Não ( )
Outra profissão? Sim ( ) Não ( ) Qual? _____

5. Que língua você fala em casa?

Português ( )
Inglês ( )
Alemão ( )
Outra ( ) Qual? _____

6. Seus pais falam outra língua além do português? Sim ( )
Não ( )

Em caso afirmativo, responda qual(quais):
Inglês ( )
Alemão ( )
Outra ( ) Qual(quais)? _____

7. Conhecimento de línguas:

	Fala	Lê	Escreve	
Português	( )	( )	( )	
Inglês	( )	( )	( )	
Alemão	( )	( )	( )	
Outra	( )	( )	( )	Qual? _____

8. Você já esteve em país estrangeiro mantendo contato com falantes nativos de inglês por mais de 3 meses? Sim ( )
Não ( )

9. Atualmente você mantém contato com falantes nativos de:

Inglês Sim ( ) Não ( )
Alemão Sim ( ) Não ( )
Outra Sim ( ) Não ( ) Qual? _____

Se a resposta da questão 9 for negativa não continue o questionário.

10. Indique com que freqüência você tem contato com os falantes mencionados acima:

	Inglês	Alemão	Outra
Freqüentemente	( )	( )	( )
Ocasionalmente	( )	( )	( )
Raramente	( )	( )	( )

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