UNIVERSITÉ DU QUÉBEC À MONTRÉAL

POLYSEMY AND CROSS-LINGUISTIC VARIATION: A STUDY OF ENGLISH AND FRENCH DEICTIC MOTION VERBS

THÈSE

PRÉSENTÉE

COMME EXIGENCE PARTIELLE

DU DOCTORAT EN LINGUISTIQUE

PAR

BEAU ZUERCHER

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UNIVERSITÉ DU QUÉBEC À MONTRÉAL

POLYSÉMIE ET VARIATION INTERLINGUISTIQUE : UNE ÉTUDE DES VERBES DE DÉPLACEMENT DÉICTIQUES ANGLAIS ET FRANÇAIS

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TABLE OF CONTENTS

LIST	F FIGU	JRESix	
RESUI	МÉ	xi	
ABST	RACT	xiii	
INTRO	DUCT	ON	
1	Backgr	round of the problem: the polysemist vs. monosemist debate 1	
2	Explaining the cross-linguistic variation of polysemy		
3	Significance of the problem		
CHAP THE S		OF POLYSEMY IN THE LEXICON11	
1.1	Polyse	mist vs. monosemist approaches in lexical semantics	
	1.1.1	Polysemist approaches	
	1.1.2	Monosemist approaches	
1.2	The se	mantics of polysemous deictic motion verbs	
	1.2.1	Deictic motion verb polysemy in the Cognitive Semantic perspective	
	1.2.2	A monosemist approach to motion verb polysemy	
1.3	Cross-	linguistic variation of motion verb polysemy	
	1.3.1	Limitations of multiple-meaning approaches	
	1.3.2	Explaining cross-linguistic sense variation via monosemy: preliminary evidence	

	S-LING	UISTIC VARIATION OF POLYSEMY IN A NEO-SAUSSU	
2.1	Variati	on in a neo-Saussurean approach to language	51
2.2	Hypoth	neses	57
	2.2.1	Question 1: Are English and French deictic motion verbs monosemous?	57
	2.2.2	Question 2: Why do these verbs show cross-linguistic sense similarities?	59
	2.2.3	Question 3: Why do these verbs show differences in their uses?	60
2.3	Metho	dology	63
	2.3.1	Data collection	63
	2.3.2	Data analysis	69
	TER III EMAN	FIC CONTENT OF DEICTIC MOTION VERBS	70
3.1	Orienta	ation	71
3.2	The de	eictic and anti-deictic centers	75
	3.2.1	Traditional formulation of the deictic center: 'me-here-now'	75
	3.2.2	The concept 'Subject of Consciousness'	79
	3.2.3	The concept 'accessibility'	86
3.3	Type o	of end relation	94
	3.3.1	The relation R	95
	3.3.2	Localization	96
3.4	Identif	ication of the verbs' semantic representations	100
CHAP THE S	TER IV SENSES	OF COME AND VENIR	102
4.1	Motion	n	102
	4.1.1	Account of general properties	103

	4.1.2	Account of deictic properties of motion uses	. 106
	4.1.3	Account of differences in motion uses	. 113
4.2	Motion	n + action	. 118
	4.2.1	Progredience: COME/VENIR + bare-INF	. 120
	4.2.2	COME/VENIR + V-ing/en V-ant	. 126
4.3	Static s	spatial extension	. 131
4.4	Actualization		
4.5	Individual experience		
4.6	State-entering		
	4.6.1	Account of shared properties	. 153
	4.6.2	Account of differences	. 157
4.7	COME + ADJ		
4.8	Order		
4.9	Origin		. 170
4.10	Posses	sion	. 173
4.11	Exister	nce with a property	. 177
4.12	Recent	past	. 181
4.13	COME	E/VENIR + VERB: impact on the SC	. 185
	TER V ENSES	OF GO AND ALLER	. 189
5.1	Motion	1	. 189
5.2	Motion	n + action	. 200
	5.2.1	GO/ALLER + destination PP	. 202
	5.2.2	Progredience: GO/ALLER + bare INF	. 207
	5.2.3	GO/ALLER + V-ing/en V-ant	210
5.3	Static s	spatial extension	. 215

5.4	Abstract extent	
5.5	Change-of-state	
5.6	Possession	
5.7	Resource/contribution	
5.8	Ceasing/ending	
5.9	Temporal uses	
5.10	Evaluation	
5.11	Appropriateness/belonging	
5.12	Action	
5.13	Iconic specification of GO-action	
5.14	Non-occurrence	
5.15	GO/ALLER + VERB: negative evaluation of action	
CONC	LUSION	
APPENDIX A SPECIFIC SEMANTIC USES OF COME		
APPENDIX B SPECIFIC SEMANTIC USES OF VENIR		
APPENDIX C SPECIFIC SEMANTIC USES OF GO		
APPENDIX D SPECIFIC SEMANTIC USES OF ALLER		
APPENDIX E SEMANTIC USES OF COME AND VENIR		
APPENDIX F SEMANTIC USES OF GO AND ALLER		
REFERENCES 346		

LIST OF FIGURES

1.1	Schema 1.VX.NC (Lakoff, 1987, p. 421)	
1.2	Schema 1.X.C (Lakoff, 1987, p. 422)	
1.3	Network of meanings for the preposition OVER (Lakoff, 1987, p. 436)	
1.4	COME: termination schema (adapted from Radden, 1996, p. 43)	
1.5	GO3: diversion schema (adapted from Radden, 1996, p. 43)	
1.6	Base meaning of GEHEN (Di Meola, 1994, p. 42)	
1.7	Base meaning of KOMMEN (Di Meola, 1994, p. 42)	
1.8	Semantic representation of VENIR (Bouchard, 1995, p. 121)	
1.9	Image schema of LAI's prototypical use (adapted from Shen, 1996, p. 509) 41	
1.10	Image schema of LAI's 'start-to-come' use (adapted from Shen 1996, p. 511) 42	
2.1	Illustration of the U-sign STAR (adapted from Bouchard, in press, p. 103) 54	
2.2	Illustration of the C-sign of modification in <i>little star</i> (adapted from Bouchard, in press, p. 121-122)	
3.1	Semantic representation of VENIR (Bouchard, 1995, p. 121)	
3.2	Semantic representation of ALLER (Bouchard, 1995, p. 150)	
3.3	Sense extensions of Swedish KOMMA 'come' (Viberg, 2003, p. 91)	

3.4	Semantic representation of VENIR	101
3.5	Semantic representation of COME	101
3.6	Semantic representation of ALLER	
3.7	Semantic representation of GO	102

RESUME

La présente thèse en sémantique lexicale examine le phénomène de la polysémie (c.-à-d. l'existence de multiples emplois inter-reliés pour un même mot), et ce de deux points de vue : d'une part, celui du statut de la polysémie dans le lexique, et d'autre part, celui des causes de la variation de la polysémie entre les langues. Les tenants d'approches par sens multiples — cn particulier ceux qui travaillent dans le cadre de la Sémantique cognitive — attribuent la polysémie d'un mot donné à un réseau complexe de sens organisés autour d'un sens prototypique et concret, ces sens étant reliés par des relations telles que la similarité et la métaphore. Mais ces approches par sens multiples souffrent d'un manque de parcimonie (prolifération des sens, redondances entre connaissances sémantiques et connaissances du monde, redondances entre les sens individuels), et elles n'offrent pas de moyen adéquat pour rendre compte des différences de polysémie que l'on observe d'une langue à l'autre.

La présente étude se penche sur les verbes déictiques anglais et français qui permettent d'exprimer des situations de 'mouvement' (COME, GO, VENIR et ALLER) par le biais de trois questions : 1) ces verbes ont-ils de multiples sens lexicaux ou un sens lexical unique ; 2) pourquoi montrent-ils les ressemblances d'emploi que l'on observe en comparant les deux langues, et 3) pourquoi montrent-ils les différences d'emploi que l'on observe ? En utilisant des données provenant de plusieurs dictionnaires, d'un petit corpus et des intuitions de locuteurs, nous avons identifié pour chaque verbe un grand ensemble de significations possibles qui appartiennent à une grande variété de domaines, et nous avons identifié le contenu sémantique lexical invariant de chacun de ces verbes en les analysant dans le cadre de l'approche monosémiste de Bouchard (1995) ainsi que celui de l'approche néosaussuréenne de Bouchard (2002, à paraître).

Nous montrons que chacun de ces verbes est monosémique au niveau lexical, ne possédant qu'une seule représentation sémantique abstraite dont les composantes sont ancrées dans des propriétés de la cognition générale. Plus spécifiquement, COME et VENIR expriment l'orientation abstraite vers le centre déictique (défini comme un point qui est accessible à un Sujet de Conscience), tandis que GO et ALLER expriment l'orientation abstraite vers une relation avec l'anti-centre déictique, le complément du centre déictique. Nous démontrons en détail comment tous les emplois sémantiques discutés dans cette étude découlent de la manière dont ces représentations sémantiques indépendantes de tout domaine particulier interagissent avec des inférences basées sur des connaissances extralinguistiques. Le degré élevé de polysémie contextuelle de ces éléments découle du caractère très abstrait de leurs

composantes sémantiques ('orientation', 'Sujet de Conscience', 'accessibilité', localisation' et R, une relation combinatoire maximalement générale). Comme il existe de nombreuses façons pour un élément d'interagir avec ces composantes (selon la nature des entités impliquées dans la situation), ces verbes peuvent donner lieu à un nombre pratiquement sans limites de manifestations différentes en fonction du contexte. Nous montrons par ailleurs que les ressemblances observées dans ces paires d'équivalents français-anglais découlent de leur contenu sémantique commun, tandis que les nombreuses asymétries que l'on observe dans les emplois de ces paires s'expliquent par une seule différence au niveau du sens invariant : les verbes anglais contiennent une relation de localisation, alors que les verbes français correspondants contiennent la relation combinatoire générale R. Étant donné que les représentations sémantiques de ces verbes sont très abstraites, l'interaction entre cette petite différence au niveau du contenu sémantique, d'une part, et les connaissances contextuelles et les connaissances du monde, d'autre part, donne lieu à d'abondantes différences de surface. D'autres différences émergent de l'interaction entre ces sens uniques et les différences grammaticales et lexicales entre l'anglais et le français.

Ainsi, nous démontrons qu'une approche monosémique permet d'offrir une analyse de la polysémie et de la variation qui est à la fois compréhensive et parcimonieuse. Les résultats obtenus appuient l'idée selon laquelle les mots tendent à être monosémiques au niveau du lexique ainsi que l'idée selon laquelle les composantes sémantiques lexicales (à la fois celles qui sont récurrentes d'une langue et l'autre et celles qui varient) sont ancrées dans des propriétés de la cognition générale.

Mots-clés : sémantique lexicale, polysémie, monosémie, variation, verbes de déplacement déictiques, anglais, français

ABSTRACT

The present dissertation in lexical semantics examines the phenomenon of polysemy (i.e. the existence of multiple, related senses for a single word) from two angles: first, polysemy's status in the lexicon, and second, the causes for cross-linguistic variation of polysemy. Advocates of multiple-meaning approaches – in particular those working in the framework of Cognitive Semantics – attribute a word's polysemy to a complex network of meanings centering around a prototypical, concrete meaning and linked by such relations as similarity and metaphor. But these multiple-meaning approaches suffer from a lack of parsimony (proliferation of meanings, redundancies between semantic and world knowledge as well as between individual meanings), and they provide no adequate means to account for cross-linguistic differences in polysemy.

The present study focuses on English and French deictic verbs capable of expressing situations of 'motion' (COME, GO, VENIR and ALLER) and pursues three questions: 1) Do these verbs have multiple or unified lexical meanings?; 2) Why do they show the cross-linguistic similarities that we observe in their uses?; 3) Why do they show the precise differences we observe in their uses? Based on data from dictionaries, a small corpus and speaker intuitions, I identified for each verb a broad set of possible senses spanning across a wide variety of domains and identified the invariant lexical semantic content of the each of these verbs by analysing them within the dual framework of Bouchard's (1995) monosemist approach and the Sign Theory of Language (Bouchard, 2002, in press).

I show that each of these verbs is lexically monosemous, possessing a single, abstract lexical semantic representation whose components are rooted in properties of general cognition. More specifically, COME and VENIR express abstract orientation toward a relation with the deictic center (defined as a point that is accessible to a Subject of Consciousness), whereas GO and ALLER express abstract orientation toward a relation with its complement, the anti-deictic center. I demonstrate in detail how all of the semantic uses discussed in this study arise from the way these domain-independent semantic representations interact with inferences based on contextual, background and world knowledge. The high degree of contextual polysemy of these items follows from the highly abstract character of their invariant semantic components ('orientation', 'Subject of Consciousness', 'accessibility', 'localization', and the maximally general combinatorial relation R). Since there are many ways in which an element can interact with these components (depending on the nature of the entities involved in the situation), these verbs can thus take on a virtually limitless number of

manifestations depending on context. In addition, I show that the sense-similarities observed in these pairs of cross-linguistic quasi-equivalents follow from their shared semantic content, while the many cross-linguistic asymmetries observed in the uses of these pairs follow from a single difference in invariant meaning: the English verbs contain localization (L) as an end-relation, while their French counterparts contain the maximally general combinatorial relation R. Because the semantic representations of these verbs are highly abstract, this slight difference in semantic content interacts with knowledge of context and the world to give rise to abundant surface differences. Further differences emerge from the way these invariant meanings interact with the differing English and French grammatical and lexical systems.

I thus demonstrate that a monosemous approach makes it possible to provide an account of polysemy and variation that is both far-reaching and parsimonious. The results obtained provide strong support for the idea that words tend to be lexically monosemous and that their semantic components (both those that recur cross-linguistically and those that vary) are rooted in properties of general cognition.

Key words: lexical semantics, polysemy, monosemy, cross-linguistic variation, deictic motion verbs, English, French

INTRODUCTION

The present dissertation is situated in the field of lexical semantics and deals with the subject of polysemy. More specifically, I will address the problem of the representation of polysemous words in the lexicon from a cross-linguistic perspective. This study aims to answer the following questions:

- Do highly polysemous English and French deictic motion verbs such as COME, GO,
 VENIR and ALLER have multiple or unified meanings?
- Question 2: Why do these verbs show the cross-linguistic similarities that we observe
 in their semantic uses?
- Question 3: Why do these verbs show the *differences* (i.e. cross-linguistic variation) that we observe in their uses?

1 Background of the problem: the polysemist vs. monosemist debate

The phenomenon of polysemy has been a central concern of lexical semantics for the past decades. Polysemy is traditionally defined as the existence, for a single lexical form, of multiple, interrelated semantic uses, also called *senses*¹. The notion of polysemy is often opposed to homonymy, which is characterized by multiple, unrelated meanings for a single form (Lyons, 1977; Kleiber, 1999). On the one hand, an oft cited example of a homonymous word is BANK, which can mean 'financial institution' or 'riverside', among other things. On the other hand, an example of a highly polysemous word is BREAK, whose numerous possible senses include 'damage' (He broke the eggs by dropping them), 'interrupt, stop' (The campaign aimed to break the cycle of crime) and 'violate, disobey' (He broke the law),

¹ In this text, I will use the terms sense and (semantic) use interchangeably.

used that are related in that they all share the notion of disruption of the continuity or integrity of some event or entity.

Because polysemy is a widespread phenomenon characterizing the majority of words (Bogaards, 2001, p. 326), any theory of the representation of word meaning must be able to account for it. One issue that has divided semanticists in recent decades is the following question: to what extent is polysemy a reality in the lexicon? That is, to what extent do the multiple senses of a polysemous word correspond to multiple semantic representations in the lexicon²?

The solutions that scholars have proposed fall along a continuum between two poles that can be labeled *polysemist* and *monosemist*³. Strong polysemist approaches (e.g. Mel'čuk *et al.*, 1995; Miller, 1995) treat senses as separate representations in the lexicon. More moderate polysemist approaches (e.g. Kleiber, 1999, 2008) recognize that at least some senses are predictable via general rules and therefore derived in context, while nonetheless holding that many senses are unpredictable and therefore lexically stored. Semanticists working within the Cognitive Semantics framework (e.g. Lakoff, 1987; Langacker, 1987, 1991; Fillmore and Atkins, 2000; Evans, 2005) argue that a polysemous word's senses form a complex network in which the non-central senses are linked to central senses via relations such as similarity, metaphor and metonymy. On the one hand, cognitive semanticists argue that polysemy is not arbitrary but rather *motivated* via general mechanisms (e.g. metaphor) rooted in general cognition. On the other hand, however, they view these senses as largely unpredictable and consider that they must be stored in the network of lexical knowledge (Lakoff, 1987, p. 438). Similarly, while Conceptual Semantics (e.g. Jackendoff, 1990, 2002) postulates shared

² In this study, I will use the term *polysemy* to refer broadly to the property of having multiple possible interpretations that are interrelated. Thus, my use of this term is neutral with regard to whether these interpretations correspond to stored meanings or are produced in context. The term *monosemy*, on the other hand, will be used to refer to the existence of a single meaning in the lexicon.

³ The terms used to characterize these tendencies vary. For example, Ruhl (1989) uses the terms *maximalist* and *minimalist*. I have chosen to avoid these because of the ambiguity of the latter term in linguistic theory.

conceptual material for a word's senses across different domains, it nonetheless considers that sense-specific information must be stored in order to account for the specific behaviour of each use.

In contrast, tenants of monosemist approaches argue that if contextual and background information is taken into account, word senses are largely predictable. They thus consider that many words have only a single meaning from which all senses are derived in context. Some monosemists (e.g. Pustejovsky, 1995) propose rich semantic representations that include much encyclopaedic detail. Others (e.g. Ruhl, 1989; Bouchard, 1995) argue that word meaning is highly abstract, and that the concrete detail observed in specific word senses comes from context and/or extra-linguistic knowledge. The latter offer several arguments in favor of abstract monosemous representations, including: 1) the need to reduce redundancy between linguistic meaning and world knowledge for reasons of scientific parsimony; 2) the regular/predictable character of polysemy; 3) blurry sense boundaries; and 4) the uncontrolled sense proliferation that results from a multiple-meaning approach.

Particularly compelling evidence in favor of the strong monosemist position is offered by Bouchard (1995), who shows that even highly polysemous words such as the general French motion verbs VENIR, ALLER, ARRIVER, PARTIR, ENTRER and SORTIR can be reduced to a single, abstract meaning. For each verb, he thus proposes a single formal semantic representation and shows how individual senses result from the interaction of each verb's core meaning with the speaker's knowledge of context and how objects behave in the real world. Crucially, Bouchard shows that no sense-specific information need be stored in the lexicon in order to produce these specific interpretations⁴.

⁴ This theoretical approach, which will be adopted as a component of the theoretical framework of the present dissertation, will be discussed in more detail in section 1.2.2.

2 Explaining the cross-linguistic variation of polysemy

One crucial test of a lexical semantic theory is whether it is able to explain not only language-internal semantic variation (i.e. why a single word can have different senses in different contexts), but also cross-linguistic variation (i.e. why a given word and its translation equivalent in another language do not share all of the same senses). Thus, a theory of word meaning should be able to account for the absence of complete overlap between the uses of two given translation equivalents. For example, English JUMP and French SAUTER are rough translation equivalents because they share certain senses, as illustrated in the following. However, as (1) through (8) show, not all semantic uses are shared.

- (1) Marie jumps constantly from one subject to another.
- (2) Marie saute constamment d'un sujet à l'autre.
- (3) The man jumped over the fence.
- (4) L'homme a sauté par-dessus la clôture.
- (5) The nightclub was jumping.
- (6) *La boîte de nuit sautait⁵.
- (7) *The bomb jumped.
- (8) La bombe a sauté.

This gives rise to an apparent paradox: on the one hand, from an intra-language perspective, polysemous word senses appear related and thus suggest the possibility of predictability. On the other hand, from a cross-linguistic perspective, this sense-relatedness appears random and unpredictable, since the exact intra-language patterns of relatedness often do not repeat from one language to another.

⁵ In the present dissertation, use of the asterisk indicates general unacceptability, regardless of the cause (semantics, syntax, etc.).

In a strong polysemist approach that views word senses as completely distinct meanings stored as a list in the lexicon, it is virtually impossible to account for this absence of cross-linguistic overlap of sense inventories. One can only draw up two lists of senses, point out that each list has certain members that are absent from the other list, and attribute this to the fact that languages are free to choose the set of meanings to which they map a given form. But such a treatment is merely descriptive, not explanatory.

In the Cognitive Semantic approach, polysemy is seen as motivated by general cognitive mechanisms such as metaphor. Cross-linguistic comparisons within this framework argue that lexical semantic variation stems from differences in the ways specific languages use these general cognitive devices. In particular, since languages are seen as anchored both in human experience of the world and culture-specific ways of conceptualizing this experience (Cruse and Croft, 2004, p. 195), differences in polysemy are attributed in part to the fact that not all metaphors are universal. However, this assumption leaves several important questions unanswered. For example, why do two given languages not use the same metaphors, and when they do, why do they not always manifest them through identical polysemy patterns? As I will show, such analyses, though perhaps useful in *ad hoc* descriptions, are not powerful explanatory tools.

Compared to multi-meaning theories, monosemist approaches provide a much more promising framework for going beyond pure description to explanation. From a cross-linguistic perspective, such an approach has the potential to explain parsimoniously why translation equivalents (such as French VENIR and English COME) differ with regard to the set of senses that each can express: if each of these verbs has only a single, abstract meaning, and the two verbs do not possess exactly the same meaning representation, the interaction of each of these abstract semantic representations with context and world knowledge will give rise to multiple surface differences in semantic behaviour. Thus, by comparing the single meaning of one verb with that of its translation equivalent, we should, in principle, be able to fully account for the differences in uses (i.e. lack of sense overlap) that these two words manifest.

As mentioned above, Bouchard's (1995) monosemous approach is supported by convincing within-language evidence showing that it offers a powerful explanation of contextually determined variation of word meaning within a given language. The problem, at present, is that no monosemist theory (to my knowledge) has been subjected to a rigorous test for its ability to explain cross-linguistic variation of polysemy. Some preliminary evidence is offered in Zuercher (2010)⁶, where I show that all of the observed differences in semantic behaviour between French VENIR and its rough Malagasy equivalent AVY follow directly from two simple differences at the level of these verbs' respective abstract core meanings. These findings suggest that abstract monosemy can indeed provide simple explanations to multiple surface differences in the semantic behaviour of cross-linguistic lexical counterparts. Given that this evidence is limited, what is now needed is a more in-depth study pursuing this problem.

Thus, the present dissertation's main objective is to test the cross-linguistic explanatory adequacy of the strong monosemist position through the comparison of the English deictic motion verbs COME and GO with their main French equivalents VENIR and ALLER.

As the present dissertation aims not only to account for the intra-language variation of a word's semantic interpretation but also to explain why this polysemy varies across languages, I adopt as the second component of my theoretical framework Bouchard's (2002, in press) neo-Saussurean Sign Theory of Language, an approach which offers a strong conceptual basis for the explanation of cross-linguistic variation in general. According to this approach, language is a set of mappings between two systems (the CI, or conceptual-intentional system, and the SM, or sensorimotor system), and explanations of linguistic phenomena should therefore be sought in the properties of these two systems. Grounding his theory in a Saussurean vision of language as a set of signs (words and combinatorial signs), Bouchard argues that many (perhaps all) properties of language – including the patterns of language

⁶ Additional preliminary cross-linguistic evidence is offered in Bouchard's (1995) brief discussion of French and English manner-of-movement verbs and transitivity.

variation we observe – can be explained by properties of the CI and SM systems and the ways they interface.

Crucially, this theory holds that many cases of *cross-linguistic* variation can be explained based on properties of these two general systems, properties that are logically anterior to language. In particular, Bouchard (2002) shows that many types of syntactic variation that Generative Grammar attributes to putative non-substantive elements of the lexicon are in fact explicable based on properties of the CI and the SM. For example, he demonstrates that the precise patterns of variation we observe between languages like French and English for the structure of the noun phrase (e.g. adjective-noun order, omission of the determiner, omission of the noun) all follow in a straightforward manner from the way Number is expressed in these two languages. Language, he argues, offers several different, equally optimal ways to mark Number and to mark dependency relations between words. Crucially, since all of these means of expression are arbitrary, languages are free to choose among them, and this gives rise to the cross-linguistic syntactic variation we observe (Bouchard, 2002, p. 34-40).

I will show in the present study that using the same line of reasoning, we can explain why polysemous words show precisely the cross-linguistic similarities and differences that we observe. More specifically, interface properties of the linguistic sign and design properties of general human cognition are sufficient to account for why polysemous English deictic motion verbs (e.g. COME, GO) share certain semantic uses with their cross-linguistic equivalents in French (e.g. VENIR, ALLER), while other uses are possible in one language and impossible in the other.

Thus, in line with Bouchard's (1995) monosemist approach, the present study will take monosemy as the default property of words in the lexicon, and in line with Bouchard's (2002, in press) Sign Theory of Language, I will take the Saussurean sign and properties of general cognition as the basis for inquiry into cross-linguistic variation.

3 Significance of the problem

The research problem being investigated in the present dissertation is motivated not only by considerations within semantic theory, but also by unsolved problems in fields of inquiry such as psycholinguistics, second language acquisition and teaching, and natural language processing.

First, from the perspective of semantics, the present study aims to bring fresh evidence to the ongoing debate on the lexical status of polysemy by testing a monosemist approach that is thus far supported by convincing language-internal evidence. In order to determine whether the monosemist approach to the lexicon has adequate explanatory power, it is necessary to test its ability to explain cross-linguistic variation, a task which to my knowledge has not yet been undertaken prior to this dissertation.

The results of this study are also relevant to the question of how word meaning is organized in the mental lexicon. The insight provided by linguistic studies such as the present one are all the more crucial given that available experimental findings from psycholinguistics do not yet provide an unequivocal picture of the psychological reality of word senses. See, for example, Klein and Murphy (2001), whose results support a multiple-entry view of polysemous words, and Beretta *et al.* (2005), who report results supporting a single-representation approach. Given the variation in the available findings, and given the methodological limitations of psycholinguistic inquiry into the structure of the lexicon (e.g. psycholinguistic measures of type of meaning storage may actually reflect not purely lexical knowledge, but rather the result of the interaction between lexical and extra-linguistic knowledge), linguistic evidence of the kind provided in the present dissertation is crucial to provide a complete picture of how word meaning is stored in the lexicon.

In addition, the present study's research problem is directly relevant to second language acquisition and pedagogy, for cross-linguistic variation in polysemy poses a challenge to L2 learners (see Bogaards, 2001; Elston-Güttler and Williams, 2008; Pavlenko, 2009). By identifying the underlying causes for cross-linguistic variations in polysemy, we can begin to shed light on the nature of the task that faces the learner of L2 vocabulary and the possible

causes of certain difficulties L2 learners encounter. The results of the present study may also help point out problematic assumptions in current models of the bilingual mental lexicon.

Finally, this dissertation's research problem also bears relevance to the field of natural language processing, for polysemy poses a significant challenge for automatic tasks like disambiguation, machine translation and information retrieval (see Victorri and Fuchs, 1999, p. 17-21, as well as Ravin and Leacock, 2000, p. 23-27). Studies such as the present one, which contribute to the understanding of the content and nature lexical semantic representations, can provide insight into the kinds of generalizations to look for when modelling word meaning from a computational perspective, in the interest of developing better lexical databases to improve the performance of NLP software.

The present dissertation is structured as follows. Chapter I examines the general problem of the status of polysemy in the lexicon and how it has been addressed in the literature. In particular, I describe the two opposing general tendencies in the treatment of sense variation (the polysemist and monosemist perspectives), going on to show the consequences these approaches have for the analysis of the polysemy of deictic motion verbs and arguing that a monosemist approach offers greater explanatory potential both within a given language and from a cross-linguistic perspective. In Chapter II, I turn to the question of cross-linguistic variation. Here, after presenting the foundations of the Sign Theory of Language (Bouchard, 2002, in press), I identify the consequences this approach has for my own research problem and formulate my hypotheses based on this approach, concluding with a description of the methodology adopted to test these hypotheses. In Chapter III, I present a monosemous analysis of the semantic content of the verbs COME and GO as well as their French counterparts VENIR and ALLER, identifying the single semantic representation corresponding to each of these verbs. The remainder of my dissertation (Chapters IV and V) is devoted to providing a detailed analysis of the senses attested for these verbs. In this analysis, I demonstrate that each of the particular semantic uses follows directly from the interaction between the verb's intrinsic monosemous content and information provided the surrounding sentential/discourse context as well as by the speaker's and hearer's shared extra-linguistic knowledge. Moreover, I demonstrate that while the highly similar semantic content of cross-linguistic pairs (COME vs. VENIR, GO vs. ALLER) accounts for the numerous uses shared by these verbs, the asymmetries observed in the possible uses of these verbs follow from a slight difference in intrinsic semantic content as well as from differences in the grammatical and lexical systems of the two languages.

CHAPTER I

THE STATUS OF POLYSEMY IN THE LEXICON

The present chapter examines the general problem of the status of polysemy in the lexicon and its consequences for the study of highly multifunctional items like motion verbs. I first review the dominant positions (polysemist vs. monosemist) in the debate on the nature of lexical semantic representations, showing that the arguments in favor of monosemy are more compelling (section 1.1). Following this (section 1.2), I briefly discuss the existing research on the semantic representations of polysemous motion verbs, showing that cognitive semanticists' assumption of the centrality of space and metaphor in the lexicon severely limits the explanatory power of their analyses. I then present Bouchard's (1995) monosemist approach to lexical meaning, highlighting the advantages of this approach for the analysis of motion verbs. Finally, in section 1.3 I compare the multiple-meaning and single-meaning approaches to polysemy in terms of their adequacy to explain cross-linguistic variation. In particular, I show that while existing polysemist studies offer no satisfactory means to explain why pairs of translation equivalents diverge in their polysemy, preliminary evidence from French and Malagasy (Zuercher, in press) shows that adopting a monosemist approach allows us to provide a powerful, parsimonious account for these cross-linguistic sense asymmetries. I conclude this chapter by formulating the present dissertation's research questions.

1.1 Polysemist vs. monosemist approaches in lexical semantics

The phenomenon of polysemy occupies a central place in contemporary lexical semantic research. As discussed above, one major problem raised by polysemy is the question of its lexical status: when a given lexical form (e.g. BREAK) possesses more than one sense (e.g. 'rupture', 'damage' or 'interrupt'), to what extent are these multiple semantic uses

attributable to distinct semantic representations in the lexicon? The diverse answers proposed by scholars in response to this question can be situated along a continuum between two poles. On the one hand, polysemist approaches claim that each of a word's senses corresponds to a distinct representation in the lexicon, and on the other hand, the monosemist perspective attributes these multiple uses to a single, unified lexical semantic representation. Thus, for monosemists, polysemy is (at least to a large extent) a phenomenon of *parole* rather than a phenomenon of *langue*: it is not something encoded in the lexical component of the language system, but rather a property that arises in contextualized language use.

In the following subsections, I will describe the dominant theoretical approaches to the lexical status of polysemy, showing that multiple-meaning approaches present several important disadvantages with respect to single-meaning approaches.

1.1.1 Polysemist approaches

The strong polysemist perspective, embodied most typically by traditional lexicography, views many words as being associated with a large number of meanings whose boundaries are clear-cut and which are stored in the lexicon. For example, in the Explanatory and Combinatorial Lexicology approach (the lexicological branch of the general Meaning Text Theory, Mel'čuk et al., 1995), each word sense corresponds to a distinct lexeme, and the set of all of a word's related senses is called a vocable. The semantic relations linking the different lexemes appear as meaning components in the lexemes' definitions. For example, the lexicalized meanings of the vocable BUREAU includes the lexemes identified in (9) through (11), and the relatedness of these lexemes is expressed via the shared sense component (called a "semantic bridge") 'destiné à faire des travaux écrits', which appears in the definition of each of these elements (Mel'čuk et al. 1995, p. 158).

- (9) BUREAUI : "table destinée à faire des travaux écrits dessus"
- (10) BUREAUII : 'pièce destinée à faire des travaux écrits dedans'
- (11) BUREAUIII.1: 'organisme destiné à faire des travaux écrits'

To determine whether or not a given semantic distinction is reflected via separate meanings in the lexicon, this approach proposes the use of a set of criteria. For example, the Criterion of Compatible Cooccurrence (also called the Green-Apresjan Criterion) states that if a given word can be used with two cooccurring elements in the same sentence, where each of these cooccurring elements evokes a different interpretation of the word in question, then the latter has only a single lexicalized meaning. For example, in (12), the possibility of using BOMBARDER simultaneously with AVION (leading us to interpret the verb as meaning 'lancer des bombes') and with NAVIRE (calling for the interpretation 'lancer des obus') shows that only a single lexical semantic representation is needed to cover these two interpretations. In contrast, the unacceptability (i.e. zeugma effect) produced by the simultaneous use of the verb FLAMBER with GOSIER and VISAGE in sentence (13) suggests that the verb FLAMBER has at least two lexicalized meanings (p. 64-65).

- (12) Des avions et des navires bombardaient le port inlassablement.
- (13) *Son gosier et son visage flambaient.

The strong polysemist perspective is also often espoused in lexical data bases used in natural language processing, such as WordNet (Miller, 1995). This data base makes very fine-grained sense distinctions, resulting in a staggering number of entries for highly multifunctional items. For example, WordNet (version 3.1) attributes 75 distinct meanings to the English verb BREAK⁷. As noted by Ravin and Leacock (2001, p. 21), one disadvantage of this way of representing word meaning is that it eclipses recurrent trends of sense-relatedness and thus makes generalizations about polysemy difficult.

⁷ Version 3.1, http://wordnet.princeton.edu/

Other scholars adopt a more moderate version of the polysemist perspective. For example, Kleiber (e.g. 1999), while insisting on the reality of polysemy as a property in the lexicon, nonetheless contends that certain word senses are the product of the interaction of a general lexical meaning with world knowledge about properties of entities involved in the situation. For example, he notes that COMMENCER, a verb that normally takes an event complement, as in (14), can also take a complement denoting an object, as in (15).

- (14) Jean a commencé à lire/écrire un livre.
- (15) Jean a commencé un livre.

Since in sentence (15) a commencé un livre is interpreted as 'started to read/write a book', whereas in (14) the verb merely contributes the concept 'begin', the verb appears to be lexically polysemous. However, Kleiber argues that the verb has only a single lexicalized meaning that is responsible for both uses. He characterizes this meaning as describing an oriented movement along some dimension of an entity, this movement resulting in the division of the entity into two (internally homogenous) parts. If the entity in question is an event (e.g. an \dot{A} + INF complement as in (14)), the movement is along the dimension of time, resulting in the event being divided into two parts: one part that is already realized and one part that has yet to be realized. If instead the complement refers to a concrete object as in (15), we obtain a reading involving either 'creation' (such that the entity is divided into a part that is already created and a part that is yet to be created) or 'modification' (such that the entity is divided into a part that has been modified and a part that has yet to be modified). In the case of the complement un livre, the modification of the object is accomplished through the turning of pages involved in the process of reading (this page-turning progressively modifying the height of the stack of read pages compared to that of the unread pages). In other words, the different interpretations attributable to COMMENCER in (14) and (15) follow from a single lexicalized meaning (1999, p. 200-209)8.

⁸ As Kleiber points out and as I show below, this analysis contrasts with Pustejovsky's (1995) analysis of the polysemy of BEGIN.

However, Kleiber raises serious doubts about the idea of extending the notion of monosemy to the lexicon in general:

[L]a quête d'un amont sémantique pour rendre compte de la diversité des « emplois » d'une unité lexicale est une opération légitime, qui permet, s'il y a effectivement un tel invariant, de débusquer les vocables faussement labellisés polysémiques. Ce qui nous semble, par contre, beaucoup moins légitime, c'est de généraliser la chose et de postuler qu'il en va ainsi de toute unité lexicale, la polysémie alors n'existant plus du tout. (2008, p. 89, my emphasis)

[C]e que l'on ne saurait refuser, c'est que certaines interprétations multiples ont des propriétés empiriques particulières qui font qu'elles sont linguistiquement pertinentes au niveau de l'unité lexicale elle-même et non plus seulement du discours. (2008, p. 97)

Thus, while acknowledging that some semantic uses are the result of pragmatic mechanisms interacting with a general lexical meaning, Kleiber nonetheless considers many cases of multiple uses to be attributable to lexicalized polysemy. For example, he argues that the two meanings of SOURIS, 'animal' and 'computer peripheral', cannot be reduced to a single category and therefore must be encoded as two separate lexical meanings (p. 91).

Other scholars, while attributing polysemy to stored knowledge about specific senses, nonetheless claim that this lexical knowledge is anchored in general, overarching conceptual structures spanning across specific conceptual domains. This is the perspective adopted in Cognitive Semantics⁹, one of the most prominent theories in current theoretical research on polysemy. In this theoretical perspective, a given word's polysemy is generally conceived of as a complex network of individual meanings built around one or several base meanings or prototypes (Lakoff, 1987; Langacker, 1987, 1991; Fillmore and Atkins, 2000; Evans, 2005). According to Lakoff (1987), polysemy is *motivated*: on the one hand, the senses of a polysemous word do not make up an arbitrary grouping, but rather a category of meanings related through general cognitive principles. On the other hand, scholars such as Lakoff argue in favor of the hypothesis of "full specification" rather than "minimal specification": individual word senses are largely unpredictable and thus must be stored (p. 420-424, p. 438).

⁹ Throughout the present disseration, I use the term "Cognitive Semantics" in a broad sense to refer to all semantic work carried out within the general Cognitive Linguistic approach.

In this approach, each word sense is held to correspond to a distinct *image schema* (a general schema based on spatial experience but independent of modality) stored in the mind, and these image schemas are arranged in a *radial* network branching out from the most central, prototypical senses to less central senses¹⁰ (p. 416-461). One type of relation among senses is *similarity*, i.e. the property of having a set of meaning components in common. For example, in the radial network of senses belonging to the preposition OVER¹¹, Lakoff (1987) distinguishes, amongst others, the two senses in (16) and (17) via two different image schema representations, given in Figures 1.1 and 1.2, respectively. These image schemas are distinguished by the presence (example (16)) or absence (example (17)) of contact between the *trajector* (roughly, the moving entity conceptualized as a figure) and the *landmark* (roughly, the ground relative to which the figure is moving). But these two schemas also share characteristics, such as the fact that the landmark is both vertical and extended (p. 419-422). Thus, in Lakoff's Cognitive Semantic perspective, lexical semantic knowledge is highly detailed, with a considerable amount of redundancy between separately stored meanings (i.e. between the multiple image schemas in a polysemous word's radial network).

- (16) The plane flew over the hill.
- (17) Sam walked over the hill.

¹⁰ This view of word senses as chained to each other by shared properties is based on Wittgenstein's (1953) idea of "family resemblances" (Lakoff, 1987, p. 435). In Wittgenstein's view, although the multiple senses of a word are related to each other (like the members of a family), there is not necessarily a single set of features that is common to *all* the senses.

¹¹ Lakoff's discussion is based on Brugman's (1981) image schema analysis of the polysemy of OVER.

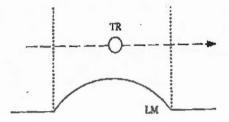


Figure 1.1 Schema 1.VX.NC (Lakoff, 1987, Fig. 3, p. 421)

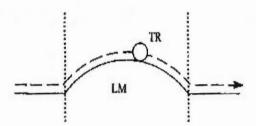


Figure 1.2 Schema 1.X.C (Lakoff, 1987, fig. 5, p. 422)

In the Cognitive Semantic framework, accounts of polysemy rely heavily on the mechanism of metaphor¹², conceived of as an asymmetrical mapping between two conceptual domains (i.e. semantic fields), the source domain and target domain. When we use a given metaphor, we attribute the characteristics of the source domain to the entities of the target domain. Conceptual metaphors, which are purely conceptual structures and which do not have a form,

¹² While scholars like Lakoff (1987) assign a central role to metaphor in the structuring of polysemy and of language in general, Talmy (2000) proposes instead the notion of *fictivity*, which he claims is more general and better adapted to describing both linguistic and non-linguistic cognition (p. 168). In particular, he proposes to handle extended uses of movement expressions through the notion of *fictive motion* (p. 99-175). Crucially, both types of approaches (metaphor and fictivity) attribute a central role to space in semantics.

are manifested through *linguistic metaphors*, which are words or expressions of a specific language (Croft and Cruse, 2004, p. 195-197). For example, Lakoff (1987, p. 439) argues that the sense of *over* in (18) is a linguistic metaphor based on the spatial sense in (17) and two conceptual metaphors: 1) OBSTACLES ARE VERTICAL LANDMARKS and 2) LIFE IS A JOURNEY. In other words, in this example "the divorce is an obstacle (metaphorically, a vertical extended landmark) on the path defined by life's journey". Here, the concept of motion from the source domain of space is used to characterize an event occurring in the abstract target domain 'life'.

(18) Harry still hasn't gotten over his divorce.

Cognitive Semantic research on polysemy has focused largely on prepositions (see Vandeloise, 1986; Brugman and Lakoff, 1988; Tyler and Evans, 2003; Meex, 2004). However, other studies have dealt with verbs, in particular verbs of position/posture (see Gibbs, 2002; Lemmens, 2002; Newman and Rice, 2004), perception (e.g. Johnson, 1999; Sjostrom, 1999; Lien, 2005) and motion (see Radden, 1996; Di Meola, 1994, 2003; Shen, 1996; Yin, 2002; Da Silva, 2003; Sivonen, 2005; Fernandez Jaen, 2006)¹³.

The Cognitive Semantic approach to polysemy has a marked advantage over traditional polysemist approaches: rather than treating word senses as lists of definitions, it views them as schematic conceptual representations whose relations are motivated by principles rooted in general cognition. Thus, senses are treated not simply as a list of distinct meaning representations within the lexicon (and therefore separated from extra-linguistic knowledge), but rather as connected to each other and to non-linguistic knowledge via general structures.

However, this approach has several important weaknesses. First, the idea of *motivation* raises a serious problem: if the relations structuring the network of senses for a given polysemous word (founded on cognitive mechanisms such as metaphor, metonymy, etc.) can be identified

¹³ Given the present dissertation's focus on deictic motion verbs, I return to the latter group below in section 1.2.

but not predicted, the value of these relations is *ad hoc* and descriptive, not predictive or explanatory.

Second, as in strong polysemist approaches, the Cognitive Semantic assumption that senses are largely conventional and unpredictable necessarily leads to extremely complex knowledge associated with lexical items, as well as a great deal of inter-sense redundancy. For example, the two senses illustrated in examples (16) and (17) above differ only with respect to the property of 'contact' and share all of their other characteristics (e.g. movement above and across a landmark, the vertical and extended character of this landmark). This type of inter-sense redundancy arises frequently in analyses within this approach, and it leads to the necessity of postulating a highly complex network of schemas for a single word, such as the partial network of meanings proposed in Lakoff (1987, p. 436) for the preposition OVER, reproduced here as Figure 1.3. In this network, each node represents a distinct sense (corresponding to its own image schema), and the letters and numbers represent the specific semantic properties of each sense¹⁴.

¹⁴ Langacker (1987) argues, however, that individual nodes should not be seen as "discrete containers, each holding a separate body of 'content'", but rather that the nodes share conceptual material, each node "structur[ing] and organiz[ing] this content in its own way, combining it with additional specifications not appropriate for all the others" (378).

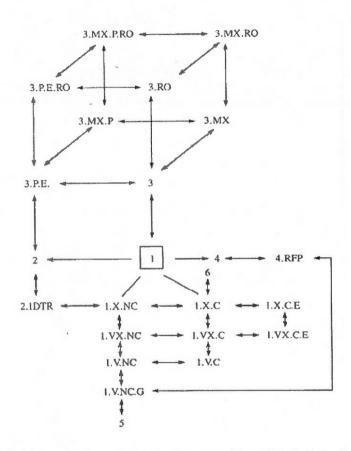


Figure 1.3 Network of meanings for the preposition OVER (Lakoff, 1987, fig. 27, p. 436)

A third problem lies in the imprecise character of image schemas. According to Lakoff, image schemas are more abstract than mental images of specific situations, and thus they can only be given an approximate formal representation (1987, p. 453). But as Kleiber (1999) argues in his criticism of Langacker's analysis of the polysemy of the verb BEGIN, the use of an image schema approach to representing word senses amounts to representing surface effects rather than the actual lexical meaning of a word. This, he argues, makes it difficult to limit the number of possible senses attributed to a given word, leading to an undesirable proliferation of semantic representations: "Une telle conception de la polysémie verbale devient vite incontrôlable et aboutit à une multiplication des sens que l'on peut estimer excessive." (p. 163).

A final problematic feature of this approach lies in the assumption that space plays a central role in language. Cognitive semanticists argue that language, which occurs in the body, is heavily influenced by spatial experiences. Thus, concrete, spatial senses are seen as the central, prototypical meanings around which abstract, "extended" senses are organized (see the analysis of OVER in Brugman and Lakoff, 1988). But such a spatio-centric view of language rests on dubious assumptions: as Bouchard (1995, p. 47-52) points out, spatial uses are easier to describe than abstract uses, yielding the illusion that they are more basic and central in the lexicon.

Another prominent semantic theory which proposes a "moderate" polysemist approach to the lexical status of polysemy is Jackendoff's (e.g. 1990, 2002) Conceptual Semantics. Unlike cognitive semanticists, Jackendoff acknowledges that non-spatial senses of polysemous words are not necessarily derived from spatial senses. Thus, he points out that unlike Cognitive Semantics, which views word senses as being derived (via mechanisms like metaphor) from a prototypical meaning, in Conceptual Semantics such senses are "parallel instantiations of a more abstract schema". For example, while TO can be used to express space, possession, ascription of properties or change of schedule (examples (19) through (22)), these different uses are manifestations of a single, "field-neutral" function describing the notion 'path' (2002, p. 356-359).

- (19) The messenger went from Paris to Istanbul.
- (20) The inheritance went to Fred.
- (21) The light went/changed from green to red.
- (22) The meeting was changed from Tuesday to Monday.

However, while acknowledging the existence of a domain-independent concept behind the different senses of a given word, Jackendoff nonetheless claims that specific senses show unpredictable properties and constraints. For example, although the verb GO, like the preposition TO, can be used in the domains of space, possession, and ascription of properties, it differs from TO's use in (22) in that it cannot be used to talk of a change of schedule: *The meeting went from Tuesday to Monday. Jackendoff thus argues in favor of the storage of

these senses in the lexicon: "All these little details have to be learned; they cannot be part of the general mapping that relates these fields to each other. This means that each word must specify in which fields it appears and what peculiar properties it has in each" (Jackendoff, 2002, p. 359)¹⁵. Consequently, although Conceptual Semantics does not adopt the derivational, spatio-centric view of polysemy adopted by Cognitive Semantics, both theoretical approaches consider sense-specific information to be (at least in part) unpredictable and thus lexically stored.

1.1.2 Monosemist approaches

Proponents of the monosemist perspective argue that polysemist approaches like those discussed above present several important disadvantages. First, as several scholars (e.g. Vandeloise, 1986; Ruhl, 1989; Bouchard, 1995; Sperber & Wilson, 1995; Levinson, 2000) have pointed out, communication relies on a great deal of contextual/background knowledge and inference. Crucially, it would be highly uneconomical and redundant to store this abundant extra-linguistic knowledge in the lexicon. For example, Ruhl (1989, p. 7) observes that some dictionaries devote a distinct definition to the semantic use in which BREAK describes the rupturing of a blood vessel resulting in blood flowing (as in *break an artery*). Ruhl argues that this interpretation is the result of highly specific world knowledge (about arteries, blood, etc.) interacting with a highly general lexical meaning. To place such

¹⁵ Similarly, while the cognitivist Langacker (1987), argues on the one hand in favor of overarching, abstract concepts, pointing out the "effective equivalence, for purposes of linguistic expression, of physical motion, perceptual motion, and the abstract motion of processes like counting or reciting the alphabet" (p. 176). On the other hand, he argues in favor of the storage of multiple sense nodes in a network. Moreover, he considers that while some such networks contain "a single 'superschema' fully compatible with all other members of the category," such an overarching representation is not always present (p. 378-381).

information in the lexicon is to deny the role of world knowledge and pragmatics in generating interpretations for words in context¹⁶.

Second, as Pustejovsky (1995) points out, polysemist approaches lead to the uncontrolled proliferation of meanings postulated for a given word, since a word can constantly be used in novel contexts with an unlimited number of possible variations in contextual detail. For example, the uses of FAST illustrated in (23) and (24) (p. 44-45), would most likely not appear in a traditional dictionary list of meanings for this word. Similarly, Ruhl (1989, p. 115) shows that while the verb HIT prototypically describes impact involving elements like a hand or a bullet (as reflected in traditional dictionary definitions), the possibilities are in fact much broader: the element involved can by anything from a hammer, as in (25), to a voice, as in (26). Crucially, if separate meanings were to be attributed to capture such situational details as those illustrated here, the result would be an explosion in the number of meanings postulated for the words in question¹⁷.

- (23) The Autobahn is the fastest motorway in Germany.
- (24) I need a fast garage for my car, since we leave on Saturday.
- (25) Barbara did the carpentry. You should hear her swear when she hits her thumb. (Robert Heinlein, as cited by Ruhl, 1989, p. 115)
- (26) Always hit the message-bearing words firmly.

Third, both Ruhl and Pustejovsky further point out that polysemist approaches are undermined by the fact that sense boundaries are often fuzzy and indeterminate (see Pustejovsky's notion of the "permeability of word senses"). For example, Ruhl (1989, p. 114) observes that although sentences like (27) and (28) are highly similar in the semantic use of

¹⁶ Moreover, as shown in my discussion of Lakoff's analysis of OVER above, the inclusion of such world knowledge in lexical meaning also leads to redundancy between senses: storing individual senses would inevitably require that we repeatedly store whatever semantic content they have in common.

¹⁷ In addition, Pustejovsky (1995) points out that same sense can often correspond to multiple syntactic categories, leading to an even greater proliferation of meanings.

the verb HIT, the notion of physical contact is more clearly involved in (27) than in (28), where AIR is used metonymically for 'be heard' or 'be realized'.

- (27) Steam emerging from scores of safety valves turned into vapor as soon as it hit the cold air. (Joseph Kraft, as cited by Ruhl, 1989, p. 115)
- (28) But the man who creates music is hearing something else, is dealing with a roar rising from the void and imposing order on it as it hits the air. (James Baldwin, as cited by Ruhl, 1989, p. 115)

For these reasons, Ruhl (1989, p. 3-5) argues that it is preferable to adopt a "monosemic bias", i.e. the default hypothesis that a given word has only a single meaning. Only after having carried out a minute examination of a large set of occurrences of the word in highly diversified contexts, and only when it proves impossible to reduce these uses to a single meaning can we conclude that these uses are due to distinct meanings in the lexicon.

Monosemist analyses vary both in the nature of the content attributed to a word's single lexical meaning and in the way in which word senses are obtained from this meaning. Some scholars postulate that a word's single lexical meaning corresponds directly to one of its senses, the remaining senses deriving from this meaning in context. This is the case for Picoche (e.g. 1986, 1994, 1995), who adopts the *Psychomécanique du langage* framework (see Guillaume et Valin, 1971) and seeks for each word a single *signifié de puissance*, an underlying meaning that is responsible for the word's various semantic uses. The latter, it is claimed, are derived via "movements of thought" by which the speaker progressively enriches or subtracts from the word's underlying conceptual content. A major weakness of this type of approach is that, as Picoche herself acknowledges, it does not adopt a strict formalism and the resulting semantic descriptions are not falsifiable, for the exact method of description adopted for one word cannot be reproduced for another word (1995, p. 124-125). For this reason, although the approach provides a certain description of the underlying unity behind a word's multiple senses, it does not make it possible to predict for a given word

precisely which senses are acceptable and which are impossible and to measure the predictive strength of this approach against competing theories¹⁸.

Victorri and Fuchs (1996) also adopt a monosemist perspective, arguing that a word's various uses emerge in context. These authors explore the semantics of the French adverb ENCORE, describing this word's core meaning via a schema corresponding to the basic temporal use (e.g. Je suis bien jeune encore); the other senses are claimed to be derived from this schema by the variation of elements such as the domain in which the contextualized word is interpreted. Thus, encore has a temporal use when interpreted in the domain of time, but the result is a non-temporal interpretation when context brings us to apply the word's schema to "another domain on which a cognitive activity of the subject is exercised". For example, in a sentence like Un pinguoin, c'est encore un oiseau, the schema is applied to a set of classes, and the sentence thus receives a "notional" rather than a temporal construal (p. 115-116).

Another approach proposing to derive a word's polysemy in context from a single lexicalized meaning is Pustejovsky's (1995) Generative Lexicon theory. Pustejovsky devotes much attention to the phenomenon of regular or systematic polysemy (also explored, e.g., by Apresjan, 1974, and Nunberg, 1995), arguing that if certain repeated patterns of polysemy prove to be predictable, they must not be attributed to multiple meanings in the lexicon. Instead, this scholar proposes a single semantic entry containing several layers of information, including what he calls a "qualia" structure. There are four types of qualia: 1) constitutive (e.g. for the word HAND, the part-whole relation with a body), 2) formal (e.g. for the word MAN, the property 'male', which distinguishes a man within the class of humans),

¹⁸ An approach that shows similarities with that of Picoche is the one adopted by Desclés (e.g. 2005; see also Deslcés *et al.*, 1998; Desclés and Guentcheva, 2005), who combines aspects of the polysemist and monosemist perspectives. On the one hand, as in mainstream Cognitive Semantic analyses, Desclés describes word senses as forming a network of interrelated senses (in his terms, *semanticocognitive schemas*). On the other hand, as in the monosemist perspective, this scholar proposes to factor out the differences between individual senses in order to arrive at a common denominator, an abstract "semantico-cognitive archetype" which he claims functions as the "root" of the word's semantic network. As Desclés et al. (1998, p. 31) point out, this element is comparable to the Guillaumian *signifié de puissance* observed in Picoche's work.

3) telic (e.g. for the word BOOK, the fact that a book has the function of being read), and 4) agentive (e.g. for BOOK, the fact that the object is brought into being through the act of writing).

In addition, Pustejovsky proposes a limited number of general mechanisms serving to derive new senses from a single lexical meaning. One such mechanism, type coercion, accounts for the semantic use of BEGIN observed in (29) below, paraphrasable as (30). According to Pustejovsky, the verb BEGIN selects an argument that is an event. Since BOOK is not of the type 'event' but does contain an event in its qualia (the telic property 'read'), the type of the complement is "coerced", and the argument is interpreted as an event, i.e. 'reading a book' (p. 115-117). In other words, type coercion generates a new interpretation for BOOK based on the intrinsic semantic properties of BEGIN and BOOK.

- (29) John began a book.
- (30) John began reading a book.

One weakness of Pustejovsky's Generative Lexicon approach lies in the complexity of its lexical entries and the precise nature of the information they contain. For example, Pustejovsky's entry for BOOK contains the agentive specification that a book is created through the event 'writing'. However, knowledge about how books come into being belongs to our encyclopedic knowledge of the way entities work in the real world. Hence, if we were to imagine a situation (for example, in a movie) in which a book were caused to appear magically (and thus without having been written by anyone), this manner of creation would not prevent us from calling the object in question a book. Crucially, this inclusion of encyclopedic information in a lexical entry leads to redundancy with respect to world knowledge, which constitutes a problem from the perspective of parsimony.

In contrast to the above proposals, semanticists who adopt a stronger monosemist perspective argue that word senses are not derived or generated from a base sense, but rather obtained from a highly abstract meaning which is not identical to any of the word's specific senses. This abstract core meaning combines compositionally with pragmatic, extralinguistic knowledge in order to produce the word's individual contextualized interpretations. That is, strong monosemists seek to show how a word's different senses can be calculated based on

the nature of the elements in the sentence environment and based on contextual knowledge (lexical and grammatical environment, nature of arguments) as well as the speaker's and hearer's shared knowledge of the world¹⁹.

For example, Piron (2006) offers an abstract monosemous account of the French verb ENTENDRE, claiming the verb's semantic core is a schema composed of a succession of five parts (p. 124-125). Only the first component ('emission') is obligatory, and the others can be "deployed" successively. Hence, while the semantic use shown in (31) (which the author calls 'émission d'un accord collusoire') involves only the 'emission' component of the verb's meaning (p. 301-306), the prototypical 'auditory' use of ENTENDRE illustrated in (32) involves the full deployment of all of the facets of ENTENDRE's meaning (p. 148-207).

- (31) Ils ne sont pas parvenus à s'entendre sur ce dossier.
- (32) J'ai entendu du bruit dans le bureau d'à côté.

Crucially, according to Piron, contrary to what our intuition may suggest, the most concrete, percept-based sense of ENTENDRE (that of auditory perception) does not correspond to the verb's meaning in the lexicon; rather, the verb's meaning is much more abstract and contains no intrinsic notion of perception.

Ruhl (1989), too, adopts a strong monosemist approach to lexical meaning. In his analysis of highly multifunctional English words such as BREAK, HIT and TAKE, he shows that each of these words possesses numerous possible uses but only a single, highly abstract lexical

¹⁹ It should be noted that certain scholars go so far as to reject the existence of a definite lexical meaning altogether. For example, Cruse (2000) affirms that "it is not possible in general to adequately specify the semantic properties of words in a context-free form" (2000, p. 30), deeming that "there is no such thing as the 'meaning of a word' in isolation from particular contexts" (2000, p. 51). However, as Kleiber points out in his criticism of what he calls the « radical constructivism » perspective, « [o]n ne peut construire avec rien et donc l'existence de morceaux sémantiques stables ou sens conventionnel est nécessaire au fonctionnement interprétatif. Ce n'est pas parce que le sens d'un énoncé est quelque chose de construit discursivement que tout ce qui mène à cette interprétation est également du construit durant l'échange [...] [S]ans sens conventionnel ou stable, il n'est guère de construction sémantique possible » (Kleiber, 1999, p. 35). Like Kleiber, I reject the notion of unstable meaning, assuming instead that each word in the lexicon must be describable by at least one stable representation.

meaning. This meaning, he claims, is inaccessible to conscious observation; moreover, he argues that conscious thought distorts this meaning by focussing narrowly on specific, often prototypical situations and referents. Ruhl postulates pragmatic mechanisms responsible for the specific interpretations we attribute to words in context. For example, the use of BREAK in break an artery is obtained via the mechanism of pragmatic metonymy: based on our knowledge of the real-world properties of blood vessels and blood, we derive from BREAK's highly general meaning the notion of the wall of an artery being ruptured, and from this we infer the result of that event (i.e. blood flowing). Another such mechanism, which Ruhl calls pragmatic specialization, consists in the enrichment and consequent narrowing down of a word's meaning. This is what we find in a sentence like The thief took the jewels, where the highly general meaning of the verb TAKE is used to describe the specific concept of 'stealing'. Crucially, the verb itself contains no notion of theft; rather, this information is inferred from contextual and world knowledge (in this case, knowledge about what thieves typically do) (p.6-7).

In the present section, I have offered a review of the major theoretical positions on the status of polysemy in the lexicon, first describing theoretical approaches that view polysemy as the existence of multiple meanings in the lexicon, and then describing those which view words as generally having only a single meaning (either a base sense or a highly abstract core) from which all senses are derived in context using extra-linguistic knowledge. As I have shown, the former perspective presents several important weaknesses which the latter allows us to overcome.

1.2 The semantics of polysemous deictic motion verbs

In the preceding section, I discussed the major differences between polysemist and monosemist approaches, showing that on the basis of general considerations such as theoretical parsimony, a (strong) monosemist perspective is preferable to a polysemist approach. As this dissertation deals specifically with the polysemy of deictic motion verbs, the present section is devoted to the consequences that these contrasting visions of word meaning have for the study of deictic motion verbs. The first subsection examines the

consequences of a multi-meaning approach, pointing out several important weaknesses. The second section then examines a monosemist approach that overcomes these theoretical shortcomings.

1.2.1 Deictic motion verb polysemy in the Cognitive Semantic perspective

Although verbs expressing motion²⁰ have received abundant attention in the lexical semantic literature, the majority of such studies are limited to the description and analysis of spatial uses of these verbs. The existing studies that do attempt to account for the polysemy of motion verbs have predominantly been carried out in the Cognitive Semantics framework²¹. Although a few studies deal with non-deictic verbs (see Da Silva, 2003, on Portuguese DEIXAR 'leave, let'; Desclés, 2005, on French AVANCER; Desclés and Guentcheva, 2005, on French MONTER and its Bulgarian equivalents; Sivonen, 2005, on Finnish KIERTAA 'circle, go around'), most have focused on motion verbs with deictic properties, i.e. verbs which can describe motion relative to the speaker or the situation of utterance (see Radden, 1996, for English COME and GO; Shen, 1996, for Mandarin LAI 'come'; Viberg, 1999, 2003, for Swedish KOMMA and GA; Yin, 2002, for Japanese KURU 'come'; Di Meola, 1994, 2003, for German KOMMEN 'come' and GEHEN 'go'; Fenyvesi-Jobbágy, 2003, for Danish KOMME 'come'; Matsumoto, 2010, on English GO).

In this framework, scholars typically seek to explain the different senses of the motion verb by proposing space-based schematic representations to describe the verb's prototypical

²⁰ As Boons (1987) points out, the French term *mouvement* (like the English term *movement*) is in fact vague, since it can apply not only to motion along a path (i.e. change of location) but also to changes in position that do not involve change of location. To avoid confusion, he proposes the term *verbe de déplacement* to describe the class of verbs involving change of location. Accordingly, throughout the present dissertation, I use the term *motion verb* rather than *movement verb*, because only the former exclusively applies to change of location. Outside of this term, the words *movement* and *motion* will be used interchangeably.

²¹ One exception is Jackdendoff (e.g. 1990), who deals with non-movement uses of motion verbs (e.g. change of possession, extension in space) as involving the same conceptual function GO as in the movement use. However, this author does not (to my knowledge) ever offer a far-reaching examination of the full range of these verbs' possible senses.

motion sense(s). In the network of the verb's polysemy, the different (central and non-central) spatial senses share many of the same general features in their schemas, but vary through properties such as the profiling of particular zones of the schema. In addition, non-spatial senses are considered to be related to spatial senses via extensions based on mechanisms such as metaphor.

One work that is representative of this approach is Radden's (1996) study of the English deictic verbs COME and GO. Radden claims that our embodied experience of space makes the domain of space (and the more specific domain of motion) central to our understanding of the world, and that consequently the multiple meanings of verbs such as COME and GO are organized around the spatial senses. He thus proposes to account for the abstract senses of these verbs as metaphorical extensions from the spatial senses. Abstract senses, it is argued, consist in the characterization of non-spatial situations in terms of the spatial domain. For example, Radden argues that the temporal sense in (33) is based on the conceptual metaphor TIME PASSING IS MOTION: "time moves toward the observer from the future and, after passing him, moves on to the past". Likewise, for GO, the 'future' sense in (34) is the result of a metaphoric extension based on the conceptual metaphor TIME PASSING IS MOTION OVER A LANDSCAPE. In both cases, time (the target domain) is described in terms of motion (the source domain). The sense illustrated in (35) is claimed to be the result of a metaphoric extension from COME's spatial "termination" schema illustrated in Figure 1.4, which describes motion from the perspective of the end of the path, via the conceptual metaphor ACHIEVING A PURPOSEFUL CHANGE IS REACHING A DESTINATION. In addition, Radden proposes that the sense of GO in (36) is a metaphorical extension of GO's 'diversion' motion schema in (given in figure 1.5) in which a moving object is caused to divert from its original path; this extension occurs via the conceptual metaphor UNEXPECTED CHANGE IS DIVERSION.

- (33) this coming weekend
- (34) I am going to be a lawyer.
- (35) We have come to a conclusion/agreement.



Figure 1.4 COME: termination schema (adapted from Radden, 1996, p. 43, figure 3)

- (36) John went mad.
- (37) GO3: diversion

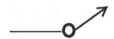


Figure 1.5 GO3: diversion schema (adapted from Radden, 1996, p. 43, figure 3)

This type of analysis of motion verb polysemy poses several important problems. First, such analyses are founded on a dubious inversion of the conceptual hierarchy between change and motion. Change is a general concept, and motion is a type of change, but this approach assumes that change is conceptualized (at least linguistically) in terms of motion (Radden 1996, p. 425). Since languages abound with words that lack any spatial senses at all (see Evans', 2005, analysis of the radial network of the word TIME), it is clear that language is not fully dependent on space and motion in its representation of abstract phenomena. Moreover, since abstract concepts such as 'time' and 'change' exist independently of space in language, it is questionable to assume to that these concepts are somehow less basic than motion.

Another problem with the Cognitive Semantic approach to motion verb polysemy is its heavy reliance on lists of conceptual metaphors. While some of the metaphors used in Radden's analysis come from other studies, he proposes a list of seven conceptual metaphors (all submetaphors of CHANGE IS MOTION) which were "discovered" through the analysis of COME and GO; in other words, the latter are proposed in an *ad hoc* fashion to accommodate senses not covered by known metaphors, opening the door to a virtually unlimited proliferation of conceptual metaphors as other words and other senses are analysed in future studies. Crucially, in addition to the complexity of the networks of word-specific knowledge assumed by Cognitive Semantic analyses (see the discussion of OVER above), the Cognitive Semantic approach adopted by Radden also requires that we assume the existence of a complex system of metaphorical knowledge to support many of the inter-sense connections in these networks. This is clearly disadvantageous from the point of view of theoretical parsimony.

To my knowledge, the only existing study to offer an in-depth, quasi-exhaustive analysis of the polysemy of deictic motion verbs like COME and GO is Di Meola's (1994, 2003) study of the German verbs KOMMEN and GEHEN. Like Radden, Di Meola's study is rooted in the Cognitive Semantic framework and thus considers that each of these verbs has as its base meaning a prototypical motion sense (for GEHEN, movement away from the observer, and for KOMMEN, movement toward the observer). Di Meola (1994, p. 42) represents these meanings via the schemas in Figures 1.6 and 1.7, where O represents the viewpoint (or deictic Origo)²².

 $^{^{\}rm 22}$ I return to the notion of origo (i.e. deictic center) in section 3.2.

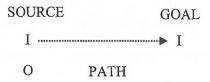


Figure 1.6 Base meaning of GEHEN (Di Meola, 1994, p. 42)

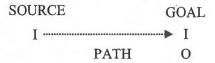


Figure 1.7 Base meaning of KOMMEN (Di Meola, 1994, p. 42)

The other senses (deictic senses involving a non-prototypical interpretation of the deictic center, non-deictic motion senses, abstract senses) are derivationally linked to this base meaning and thus form a network of meanings. As the author points out, in one extended use KOMMEN can describe motion that is restricted by an obstacle, as illustrated in sentence (38).

(38) Sie hatten Mühe, zu ihren Plätzen zu kommen. (ex. 22, 2003, p. 48) 'They had trouble getting to their places.'

This use, he claims, is derived first by passing from the notion of *viewpoint* to the notion of *focus*, and then by inferring from the latter the notion of restriction. Although he claims this derivational relation is based originally on inference, he nonetheless treats this semantic use as a distinct, conventionalized meaning:

With the first step the place where the (deictic) observer was positioned now becomes the place the (non-deictic) attention is focused on [...] The second step leads from focus to restriction [...] In the case of the verb *kommen* we know that the trajector has reached the GOAL. On the basis of conversational implicature (which becomes conventional) the speaker/hearer argues as follows: if we focus on the GOAL, the fact of reaching it must be relevant (non-obvious); therefore an external force must have influenced the movement (hindering the trajector[...]) (Di Meola, 2003, p. 55-56, my emphasis).

In the case of abstract uses these deictic verbs, Di Meola (1994), like other cognitive semanticists, has recourse to the mechanism of metaphor. For example, to account for the 'news as an abstract object in movement' sense illustrated in (39), the author claims that transfer of information is presented as movement based on the conceptual metaphor MEANINGS ARE OBJECTS (p. 90). Similarly, in the case of the 'intellect as origo' use shown in (40), he argues that mental change is presented as movement, via the metaphor CHANGES ARE MOVEMENTS INTO OR OUT OF BOUNDED REGIONS (p. 113).

- (39) Fast täglich kommen aus den Labors neue Gerüchte.

 'Nearly each day, new rumors are coming from the laboratories.' (my translation)
- (40) Die Albernheit seines (...) Planes kam ihm zum Bewusstsein.

 Lit. 'The foolishness of his plan came him into consciousness.'

 'He became aware of the foolishness of his plan.' (my translation)

Crucially, in keeping with other Cognitive Semantic analyses, the full array of senses examined in Di Meola's work are considered to be part of lexical knowledge. Thus, although this study of KOMMEN/GEHEN is exemplary in that it takes into account an exceptionally wide range of semantic uses and provides a fine-grained description of these senses, it nonetheless presents the same basic shortcomings inherent in the other Cognitive Semantic analyses of polysemy: multiple storage of the same information, heavy reliance on metaphor, lack of predictive power and lack of parsimony.

1.2.2 A monosemist approach to motion verb polysemy

I have shown in the preceding sections that a single-meaning approach to polysemy is preferable to multiple-meaning approaches (section 1.1) and I have shown, in particular, that the dominant approach to the polysemy of motion verbs (Cognitive Semantics) fails to provide an adequate, economical means of explanation of the polysemy of motion verbs

(section 1.2.1). A question therefore arises: is it possible, by adopting a strict monosemous perspective and thus avoiding reliance on rich metaphorical knowledge and complex networks of lexical semantic knowledge, to provide a more powerful account of the great diversity of senses observed for deictic motion verbs like COME and GO?

In the present section, I show that a strong monosemist perspective, in particular the approach proposed by Bouchard (1995), does indeed provide a framework which is both more parsimonious and more powerful than a polysemist theory like Cognitive Semantics. I first identify the basic theoretical assumptions and principles of this theory (which I adopt as a component of the theoretical framework of the present dissertation) and then summarize Bouchard's analysis of French motion verbs, showing that this analysis overcomes the weaknesses inherent in multiple-meaning theories of the lexicon.

1.2.2.1 Basic assumptions of the theory

The present dissertation's analysis will be carried out in the framework proposed by Bouchard (1995), a strong monosemist approach which adopts the default hypothesis that a word possessing multiple, interrelated semantic senses has only a single lexical meaning (see Ruhl's "monosemic bias"). In order to eliminate all redundancy between semantic representations and extralinguistic knowledge (i.e. contextual and encyclopaedic knowledge shared by speaker and hearer), Bouchard proposes simple, highly abstract lexical entries that are emptied of all situational information. Thus a verb's senses, rather than being stored in the lexicon, are calculated compositionally by combining the stable, abstract semantic representation with extra-linguistic knowledge²³.

One significant advantage of this approach lies in the fact that it proposes formal representations for the core meaning of a word, making it possible to illustrate clearly and explicitly how the different senses of a word can be calculated in context. Crucially, this

²³ For an alternative analysis of general motion verbs such as VENIR and ALLER that also proposes abstract lexical semantic representations, see Lamarche (1998).

formalization enables us to rigorously test the validity of the postulated meaning for a given word and thereby to test the strong monosemist view in general.

In order to account for correspondences between semantics and syntax, Bouchard postulates a level of representation called *grammatical semantics* (G-Semantics) containing only the information relevant to grammar. He distinguishes this level from information belonging to *situational semantics* (S-Semantics), i.e. elements of background knowledge that belong to the specific situation in which a word is used. Bouchard argues that lexical semantic representations contain only those properties that are relevant to G-Semantics. Thus, he rejects the assumption (defended, e.g., by tenants of Cognitive Semantics) of the centrality of space in word meaning. The invariant lexical meaning of a verb like French VENIR, he claims, does not contain any spatial information at all: it is highly abstract, and all of the word's semantic uses (both concrete and abstract) are calculated from this representation rather than being derived from one of the verb's concrete senses.

1.2.2.2 Analysis of French motion verbs

Bouchard (1995) illustrates his approach through a detailed case study of six French verbs (VENIR, ALLER, ARRIVER, PARTIR, ENTRER and SORTIR), identifying for each verb a single semantic representation. He emphasizes that these verbs do not intrinsically express motion, insisting instead that each verb's semantic representation expresses the abstract notion of *orientation*. The latter is claimed to be an "organizing concept" that the human mind imposes on experience rather than an objective relation belonging to a specific domain of external reality, such as space or time (p. 67-68).

Thus, the meaning of the verb VENIR is represented by the tree structure in Figure 1.8, which can be rewritten as the bracketed form in $(41)^{24}$.

²⁴ Adapted from Bouchard (1995, p. 202).

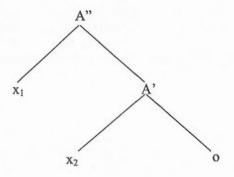


Figure 1.8 Semantic representation of VENIR (Bouchard, 1995, p. 121)

(41) VENIR: [X₁ COPULA [X₂ COPULA 0]]

This tree structure consists of one copula relation embedded within another. The lower part, $[X_2 \text{ copula o}]$, expresses that the variable X_2 is in a relation with the deictic center o, defined as 'me-here-now'. The upper tier of the representation expresses that the variable X_1 relates to the lower relation. Bouchard claims that the tree structure itself has meaning: given properties of dominance inherent to the tree structure formalism, the tree expresses that X_1 is oriented toward the relation $[X_2 \text{ copula o}]$. Since the upper variable X_1 binds the lower variable X_2 , the resulting meaning of the structure as a whole is: 'X is oriented toward its being in a relation with the deictic center' (p. 121).

Extra-linguistic knowledge about the nature of the arguments in the sentence plays a crucial role in calculating the specific situation to which the sentence refers. For example, in the sentence Max vient de Paris demain, the fact that the word Max typically refers to a human — a concrete, animate entity — brings us to interpret the deictic center in terms of its spatial facet 'here'. The most natural way for a human (a concrete entity with volition) to realize an orientation towards the spatial point 'here' is to undergo motion (p. 127-128). For the sentence Cette route vient de Montréal, our encyclopaedic knowledge of the spatial properties of bridges and cities brings us to interpret this orientation once again in the domain of space, but this time as a static extension in space rather than as motion (p. 138). In

contrast, in a sentence such as *Max vient de partir*, where the complement of VENIR is a verb (i.e. a tense-bearing element) describing an event; this leads us to interpret VENIR's orientation and the deictic center temporally (the latter thus being construed according to its temporal facet 'now') (p. 139-144). In the case of a sentence like *Ce mot vient du grec*, both the generic tense and the lexical elements in the sentence bring us to interpret the deictic center in its abstract 'me' facet (construed generically as a "self in the set of all selves"), with the complement *du grec* expressing a permanent property of the entity *ce mot* (p. 136-137).

Bouchard argues that other general motion verbs in French have similar tree structures, differing from VENIR only with respect to the nature of the lower argument (the deictic center ω , or a variable y) or the presence of negation on the lower relation, as shown in the semantic representations (given here in bracket form) in (42) through (46) (adapted from Bouchard, 1995, p. 202).

- (42) ALLER: $[X_1 \text{ COPULA } [X_2 \text{ COPULA } \omega]]$
- (43) ARRIVER: $[X_1 \text{ COPULA} : [X_2 \text{ COPULA} y]]$
- (44) PARTIR: [X₁ COPULA [X₂ NOT-COPULA y]]
- (45) ENTRER: [X₁ COPULA [X₂ DANS y]]
- (46) SORTIR: $[X_1 \text{ COPULA } [X_2 \text{ NOT-DANS } y]]$

Bouchard is thus able to account for numerous similarities and differences between the sense inventories of these verbs based on minimal differences in intrinsic content. For example, the core meaning proposed for ALLER differs from that of VENIR by only a single element: in the case of ALLER, the orientation is towards a relation with the constant ω, the anti-deictic center. The latter is defined as the complement of the deictic center o, that is, any point other than the 'me-here-now' (p. 150). This minimal difference in content is sufficient to explain why the uses of ALLER ('motion', 'spatial extension', 'time', etc.) differ from the corresponding uses of VENIR, and why certain uses are possible for one verb and not the

other (e.g. VENIR expresses both 'future' and 'past', whereas ALLER can express only 'future') 25.

Thus, Bouchard's monosemous analysis of French motion verbs demonstrates that highly multi-functional verbs need not have multiple lexical meanings: rather, each verb is shown to have only a single, abstract meaning from which specific senses are derived based on extralinguistic knowledge. The semantic representations proposed for these verbs not only account for the multitude of senses that are possible for a given verb; they also account for the differences in semantic behaviour from one verb to the next, surface differences that result from very slight differences in each verb's respective invariant content. Crucially, by adopting the assumption that such verbs have no spatial content at all and by taking into account the contribution of extralinguistic knowledge, Bouchard's approach provides a more powerful explanation for the polysemy of motion verbs than the spatio-centric, metaphor-based analyses discussed in section 1.2.1 above.

1.3 Cross-linguistic variation of motion verb polysemy

The present section examines the consequences of the polysemist and monosemist perspectives for the problem of explaining why motion verbs vary cross-linguistically in terms of their polysemy (i.e. why translation equivalents share some, but not all of the same semantic uses). First, in section 1.3.1 I examine the consequences of the multiple-meaning view of polysemy, focusing on the Cognitive Semantics approach and showing why this perspective does not provide adequate means to explain why motion verbs' sense inventories differ cross-linguistically. Then, in section 1.3.2 I present preliminary evidence showing that the monosemist approach provides the necessary tools to explain cross-linguistic variation of polysemy through minimal differences in lexical semantic content.

²⁵ As I will show in the analysis of the present dissertation (Chapters III-V), the same holds for cross-linguistic comparisons: very slight differences between the meaning representations of a cross-linguistic translation pair like VENIR and COME account for numerous differences in the senses inventories of these verbs.

1.3.1 Limitations of multiple-meaning approaches

As shown above (sections 1.1 and 1.2), theories which postulate multiple meanings in the lexicon suffer both from lack of parsimony and from explanatory inadequacy from a language-internal perspective. As I will show in this section, a multiple-meaning approach also proves inadequate for the task of explaining why polysemy *varies* from one language to the next.

As has been pointed out by several scholars, motion verbs (in particular deictic motion verbs like COME and GO) do not necessarily have identical semantic content from one language to the next. Several studies (Wilkins and Hill, 1995, on Mparntwe Arrente and Longgu; Botne, 2005, on Chindali; Choi-Jonin and Sarda, 2007, on Korean and French; Antonopoulou and Nikiforidou, 2002, on Greek) provide strong evidence that the cross-linguistic equivalents of verbs like COME and GO, while satisfactory as approximate translations in certain contexts, differ in many of their uses. Crucially, however, these studies focus solely on motion uses of these verbs and thus do not attempt to provide an explanation for the variation in these verbs' full polysemy.

As mentioned above (section 1.2.1), studies that attempt to account for the polysemy of deictic motion verbs have predominantly been carried out in the Cognitive Semantics framework. One problem that this approach encounters in the context of cross-linguistic variation of polysemy is the lack of constraints on image schemas. In an image schema approach, different spatial senses can be accounted for by variations regarding which elements of the schema are profiled (i.e. given special prominence with respect to the rest of the schema, see Langacker, 1987, 1991). For example, Shen (1996) and Yin (2002) observe that Mandarin LAI and Japanese KURU, respectively, can be used to describe the beginning part of the motion event, as illustrated in (47) and (48). According to these authors, this 'start-to-come' sense results from the profiling of the first part of the path in the image schema. That is, while in the prototypical use of these verbs, the whole path is profiled (as in Figure 1.9), in the 'start-to-come' use, only the first part is profiled (as in Figure 1.10).

- (47) Ta yijing lai le, xianzai zheng zai lu-shang ne
 he already come PERF now PROG at way-on (LOC) PRT
 'He has left for here already, and he is on the way right now.' (Shen, 1996, p.
 510)
- (48) Kare wa Nihon e kuru tochuu datta ga kaetta
 he TOP Japan to come halfway past but go back-PAST
 'He began coming to Japan, but he went back halfway.' (Yin, 2002, p. 70)

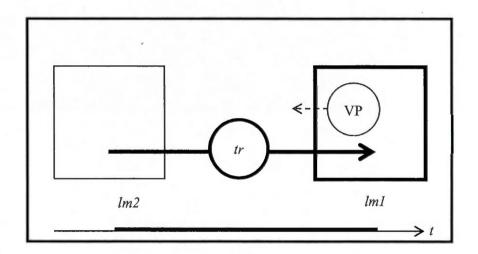


Figure 1.9 Image schema of LAI's prototypical use (adapted from Shen, 1996, p. 509)

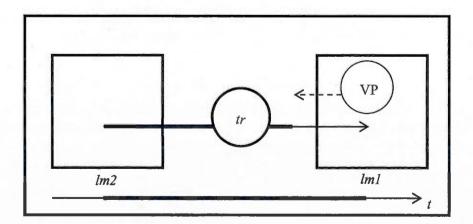


Figure 1.10 Image schema of LAI's 'start-to-come' use (adapted from Shen 1996, p. 511)

However, as Shen points out, English COME does not possess this sense, as shown by the unacceptability of sentence (49). Crucially, Shen's analysis does not allow us to explain the presence of this sense for Chinese LAI and its absence for English COME. That is, assuming that the prototypical use of English COME is describable by an image schema similar to Figure 1.9 above, there is no reason why the path in COME's representation should not be able to undergo the same partial profiling as in the schemas of its Chinese and Japanese counterparts. Thus, explanations of sense differences through variations in profiling offer no means to explain and predict such cross-linguistic differences in spatial uses as the one illustrated here.

(49) *He has come already, and he is on the way right now. (Shen, 2002, p. 510)

Aside from problems arising from the use of profiling of different parts of image schemas, another important obstacle for cross-linguistic explanation in a Cognitive Semantic perspective concerns the use of metaphor as an explanatory device. Given the Cognitive Linguistic view that languages are anchored not only in human experience of the world, but also in the specific ways in which each culture conceptualizes this experience, certain metaphors are argued to belong to specific cultures and to the corresponding languages (Cruse and Croft 2004, p. 195). Thus, some cross-linguistic similarities and differences in polysemy can presumably be attributed to similarities and differences in metaphor. For example, on the one hand, Deignan et al. (1997) argue that the conceptual metaphor HUMAN RELATIONSHIPS ARE BUILDINGS is present both in English and in Polish, and that is it in manifested in the same way in both languages in the polysemy of the words CEMENT and CEMENTOWAĆ, both of which can be used not only concretely but also metaphorically in expressions such as cement a relationship. On the other hand, as Csábi (2004, p. 250) points out, even when two languages do share the same conceptual metaphor, the latter will not necessarily always be manifested in the same linguistic patterns. Thus, Deignan et al. (1997, p. 354) posit that the metaphor IDEAS ARE FOOD is present in both English and in Polish but that it is not manifested in the same linguistic expressions in both: an incoherent idea is characterized in Polish by the adjective NIEDOJRZALE 'not ripe', while in English it is characterized as HALF-BAKED.

Crucially, there is no way to reliably predict which metaphoric extensions will be allowed from one language to the next. This problem can be illustrated for deictic motion verb polysemy with an example from Shen's (1996) analysis of the Chinese verb LAI 'come'. To account for the existence of the 'mental intention' sense shown in (50), Shen argues that this sense is derived from the verb's prototypical spatial use (shown in Figure 1.9 above) via a metaphoric shift from the spatial domain to the mental domain, with the subject's referent (e.g. 'he') being viewed as moving toward the future event (e.g. 'buy a gift'). Since the shift is to the mental domain, the movement is interpreted as an intention, whence the notion of intended future occurrence (p. 531-532). In contrast, Shen cites Langacker (1991) as claiming that in English, the existence of the future use of the verb GO (illustrated in (51)) is due to a metaphoric shift from the spatial domain to the temporal domain, with focus thus being placed on future occurrence rather than on intention. According to Shen, the fact that the future use is obtained via different metaphorical shifts in these two languages (i.e. shift to the mental domain in Chinese and to the temporal domain in English) explains why future GO is completely unacceptable with the future marker WILL (as in (52)), while LAI is marginally acceptable with the future marker HUI, as in (53). Crucially, this sort of account, which attributes cross-linguistic differences in polysemy to differences in the particular metaphoric shifts that are allowed in each language, offers little predictive power and thus constitutes a mere ad hoc description.

- (50) Ta lai mai liwu he come buy gift 'He's gonna [sic] buy a/the gift.'(Shen, 1996, p. 528)
- (51) He is going to buy a gift.
- (52) *I'll be gonna hold the door. (Shen, 1996, p. 532)
- (53) ??Wo hui lai xi wan, ni zuo beide ba.I will come wash dish you do other PRT'I'll wash the dishes, and you take care of other things.'(Shen, 1996, p. 529)

Another example of the weaknesses of the Cognitive Semantic, metaphor-based approach in explaining cross-linguistic variation in the polysemy of deictic motion verbs comes from Di Meola's (1994) examination of differences between German, English and Italian deictic

motion verbs with respect to a limited set of senses. Di Meola points out that these three languages all allow extension of the deictic center (normally the physical location of the speaker) to apply to an abstract part of the speaker, i.e. the intellect, as show in examples (54) through (56). In contrast, he observes that while German KOMMEN and English COME cannot be used in extended uses to describe changes in the observer's emotions and body, Italian VENIRE can, as shown in (57) through (59) (p. 121-122).

- (54) Ihm kam eine Idee.
- (55) An idea came to him.
- (56) Gli venne un'idea.
- (57) Mi viene un desiderio irrefrenabile di mangiare cioccoloata. Lit. 'An irresistible urge to eat chocolate comes to me'.
- (58) Gli viene fame/sete/stanchezza/etc. Lit. 'Hunger/thirst/fatigue/etc. comes to him'.
- (59) Gli à venuto mal di testa.

 'A headache came to him'.

Di Meola claims that this cross-linguistic difference in polysemy is due to a differing restriction on the deictic center: in German and English the deictic center can only be extended to the mental domain, while in Italian it can apply to the whole body (and thus also to the mind and emotions). He further explains this difference in restriction by claiming that the languages in question use different folk models (p. 123). Once again, this type of explanation is merely *ad hoc* and has no independent motivation²⁶.

Thus, in addition to the problems with language-internal explanatory adequacy identified above (sections 1.1.1 and 1.2.1), Cognitive Semantic analyses face another problem: they do

²⁶ Another example of a cross-linguistic comparison of deictic motion verbs is Viberg (1999, 2003) who examines the similarities and differences between Swedish KOMMA and GA and with respect to their cross-linguistic equivalents from languages like English. Like Di Meola (1994), however, this study does not provide a far-reaching, principled explanation for the sense divergences between these languages.

not offer adequate means to explain and predict between-language variation of polysemy. Relying on mechanisms like image schema profiling and metaphor to account for sense relations, they do not allow us to go beyond ad hoc descriptions of cross-linguistic asymmetries to explain why the members of a given pair of cross-linguistic translation equivalents (in particular, deictic motion verbs) typically are not identical in their respective ranges of possible semantic uses.

1.3.2 Explaining cross-linguistic sense variation via monosemy: preliminary evidence

As shown above, from a language-internal perspective, there are several reasons in favor of adopting the strong monosemist view, which postulates a highly abstract core meaning that combines with extralinguistic knowledge to generate specific interpretations in context. In particular, I showed that Bouchard's (1995) monosemist approach provides one of the most powerful explanatory frameworks. However, while Bouchard demonstrates the adequacy of his theory to explain language-internal polysemy patterns, demonstrating how abstract monosemy accounts for the semantic behaviour of six French motion verbs (VENIR, ALLER, ARRIVER, PARTIR, ENTRER, and SORTIR), he does not attempt to explain why the corresponding verbs in other languages do not have the same sense inventories²⁷.

In order to fully test this approach, we must examine not only its language-internal validity, but also its ability to account for variation between languages. To my knowledge, only one study has tested the cross-linguistic explanatory power of a strong monosemist approach by systematically comparing the sense inventories of a pair of translation equivalents. In order to compare Bouchard's analysis of French with data from a language that is both typologically and genealogically very different from French (and thus to test the universal validity of the monosemist approach), Zuercher (2010) examines the verb AVY 'come' from Malagasy (an

²⁷ This author does offer preliminary evidence of the cross-linguistic explanatory power of his monosemist approach, e.g. in his comparison of English and French (dealing with the interpretational properties of manner-of-movement verbs and with the possibility or impossibility of certain motion verbs to be used transitively). However, he does not attempt to account for the *full array* of sense differences between a given pair of translation equivalents.

Austronesian language of the Malayo-Polynesian branch). In this study, I identify the different senses of AVY, propose a single semantic representation (shown in (61)), and show how slight differences between this core meaning and that of VENIR (represented in (60)) explain the various surface differences in these verbs' semantic behaviour.

Just like VENIR, AVY's meaning is abstract and contains no concept of movement or space. Consequently, both verbs can be used not only in the spatial domain (to describe situations like movement) but also in abstract domains like time and origin. However, they are not identical: whereas VENIR means 'X is oriented toward being at the deictic center', AVY means 'X is oriented *from* being at the *anti-deictic* center'. It should be noted that these schematic representations are simplifications of the relations expressed in the tree structure used by Bouchard (1995), and that this formalism is used here only for ease of presentation. Crucially, unlike the image schemas used in Cognitive Semantics, this representation expresses no spatial information at all²⁸.

Thus, these two verbs differ only with respect to two aspects of their meaning: the nature of the constant and the role played by this constant within the representation. First, for VENIR the constant is the deictic center o, while in the case of AVY the constant is the anti-deictic center ω , that is, any point other than the deictic center. Second, for VENIR, the constant plays the role of *goal* of the orientation, while in AVY's meaning the constant corresponds to the *origin* of the orientation.

²⁸ It should also be noted that the analysis of Malagasy presented here is much less fine-grained than the present dissertation's analysis of COME, GO, VENIR and ALLER (Chapters III through V), where I propose more detailed representations accounting for a much wider array of senses than those considered here. Moreover, unlike Zuercher (2010), which directly adopts the meaning proposed by Bouchard for VENIR, the present dissertation's analysis shows that modifications must be made to this representation in order to account for the full range of VENIR's uses.

A first consequence of this difference in meaning is that although both verbs can describe a movement in space, their spatial uses are not identical. For both verbs, a locative complement is interpreted as giving further specification to the reference of the constant. But the difference in role played by the constant in the two representations (endpoint for VENIR and origin for AVY) affects the interpretation of a directionally neutral locative complement: for VENIR, it is interpreted as the destination of movement (62), and for AVY, it is interpreted as the origin of the movement (63)²⁹.

- (62) Jean est venu au bureau.
- (63) Avy (t)any amin'ny birao Jaona.

 come (PAST-)there PREP-DET office Jean

 'Jean comes/came from the office.' (and not: 'Jean comes/came to the office')

A second consequence is that while VENIR requires that the destination of motion be 'here' (normally the location of the speaker), in the case of AVY the destination can be anywhere – 'here' or 'there'. This is because VENIR's meaning indicates orientation toward o, the deictic center, while AVY's meaning specifies no destination at all. Moreover, the origin – the constant ω – is extremely general, allowing for a broad range of possible trajectories. Consequently, (64) is vague: the destination can be either 'here' or some point located in the 'not-here'³⁰.

²⁹ An exception to this generalization is that in the future and imperative, the locative complement is interpreted as referring to the goal of movement rather than to the source of movement. I argue in Zuercher (2010) that this is due to the interaction of AVY's meaning with the Malagasy tense and aspect system.

³⁰ Note, however, when this sentence is heard out of context, the most natural interpretation for a Malagasy speaker is that the destination is identical with the speaker's location. I show that this is due to an inference based on the fact that AVY's meaning specifies orientation from an origin that is 'not here'.

(64) Ho avy izy rahampitso.

FUT come 3SG tomorrow

'He will come tomorrow.'

A third surface difference is the presence/absence of a preposition. Because VENIR's representation contains no element corresponding to the origin of the orientation, in order for VENIR to take a complement expressing source of motion, a source-preposition (i.e. DE) is needed (65). This is not the case for AVY: since the latter's complement links to a constant occupying the position of source of the orientation in AVY's semantics, a source complement need not be introduced by a source preposition (66). This structural difference holds not only for the spatial domain, but across these verbs' different senses, including the recent past construction in (68). This same underlying difference explains an additional surface difference: AVY (unlike VENIR) can itself function as a FROM-preposition when it follows another verb in a serial construction, as shown in (69).

- (65) Jean vient *(de) Montréal.
- (66) Avy Ø any Montreal Jaona.
 come there Montreal John
 'John comes/is coming from Montreal.'
- (67) Jean vient de manger.
- (68) Avy Ø nisakafo Jaona. come PAST-eat John 'John has just eaten.'
- (69) Tonga avy tany Fianarantsoa izy.
 arrive come PAST-there Fianarantsoa 3SG
 'He arrived from Fianarantsoa.' (lit. 'He arrived coming from Fianarantsoa.')

Another surface surface difference involves AVY's and VENIR's ability to express anteriority with respect to the present, as in (67) and (68) above. In VENIR's representation the endpoint of the orientation is the deictic center, whose temporal interpretation is 'now'; thus, when VENIR describes a relation of anteriority, it can do so only with respect to the moment 'now'. In contrast, AVY's representation places no constraint on the destination of

the orientation, so it can express anteriority with respect to a non-present event described in the main clause³¹.

- (70) Nony avy n-ilalao izy dia n-ody. when come PAST-play 3SG CONJ PAST-go-home 'When he had played, he went home.'
- (71) *Quand il vint/venait de jouer, il rentra/rentrait.

Finally, while VENIR can express that an event has an impact on the speaker, AVY cannot, because AVY's meaning does not intrinsically express orientation toward a deictic center construable as the affected 'me'.

- (72) Ne viens pas me dire que tu as faim!
- (73) *Aza avy miteny amiko hoe noana ianao!
 NEG come PRES-tell PREP-1SG that hungry 2SG
 lit. 'Don't come and tell me that you are hungry!'

These findings reveal a crucial advantage of a monosemous approach in explaining cross-linguistic meaning variation: a set of numerous and seemingly disparate surface differences can be explained through a very slight difference in the underlying meaning representation. Because these representations are abstract and therefore independent of contextualized, situation-specific details, even the slightest of variations in meaning at this level can give rise to important differences at the surface level.

The results of Zuercher (2010) therefore offer preliminary evidence in support of the monosemist approach's potential to not only explain language-internal polysemy patterns, but also to explain differences between a given word's range of polysemy and that of its cross-linguistic equivalent. However, this study of Malagasy focuses on a relatively limited number of senses and does not involve fine-grained sense distinctions brought about, for example, by slight variations in the nature of the referents of the verb's arguments, or variations in the speaker/hearer's background knowledge. Consequently, in order to thoroughly test this

³¹ Construction noted by Rajaona (1972, p. 315), from whom this Malagasy example was borrowed.

monosemist approach's cross-linguistic explanatory power, a much more exhaustive, finegrained analysis of cross-linguistic sense similarities and differences in deictic motion verbs is necessary.

The goal of the present dissertation is thus to carry out what is to my knowledge the first thorough, far-reaching test of a monosemist approach's ability to provide a principled account of the variation of polysemy between languages. This will be done through the comparative analysis of the general English deictic motion verbs COME and GO and their French counterparts VENIR and ALLER. The research questions of the present dissertation are the following:

- (74) **Question 1:** Are English and French deictic motion verbs lexically monosemous?
- (75) Question 2: Why do these verbs show the cross-linguistic similarities that we observe in their uses?
- (76) Question 3: Why do these verbs show differences that we observe in their uses?

This comparative study will allow me not only to further test Bouchard's (1995) language-internal analysis of the French verbs, but also – crucially – to show that abstract, unified semantic representations provide the key to explaining why the deictic motion verbs of two given languages do not fully share their sets of possible senses. Thus, I will show that the abstract monosemist view of word meaning provides a more powerful, parsimonious account of cross-linguistic asymmetries of polysemy than spatio-centric approaches that assume multiple lexicalized meanings.

CHAPTER II

CROSS-LINGUISTIC VARIATION OF POLYSEMY IN A NEO-SAUSSUREAN PERSPECTIVE

Given this dissertation's main objective of providing an explanation for the cross-linguistic variation of polysemy, a theory is needed that provides the appropriate conceptual tools to explain cross-linguistic variation in general. As I show in the present chapter, Bouchard's (2002, in press) neo-Saussurean Sign Theory of Language provides the needed theoretical foundations for this undertaking and will thus serve as the second major component of my theoretical framework. From this theory, I adopt the fundamental assumption that cross-linguistic variation can be explained based on properties of the Saussurean sign and the logically anterior properties of the two systems (CI and SM) involved in language. That is, by looking at the substances from which language is built, we can show why language varies, and why it varies the way it does.

First, in section 2.1 I discuss the theory's fundamental assumptions, focusing on how it proposes to explain variation across languages. Then, in section 2.2, I show the logical consequences of this theory for the problem of the variation of polysemy, examining this dissertation's research questions in light of the theory and showing how my hypotheses follow from its assumptions and principles. Finally, in section 2.3 I describe the methodology adopted to verify these hypotheses.

2.1 Variation in a neo-Saussurean approach to language

Bouchard's (2002, in press) neo-Saussurean Sign Theory of Language is founded on Saussure's conception of language as a set of signs, i.e. binary associations between a form and a concept, or *signifiant* and *signifié* (Saussure, 1916). Bouchard applies the notion of sign

not only to words – which he calls *unit signs* (or U-signs) – but also to syntax, which is composed of *combinatorial signs* (or C-signs) (in press, p. 123). Thus, on the one hand the word STAR consists of a relation between a concept (the type 'star') and a percept (the acoustic image /sta:r/), each of these purely linguistic elements being itself linked to a piece of extra-linguistic material (a chunk of extra-linguistic cognition linked to the word's meaning and sound waves linked to the word's form), as illustrated in Figure 2.1. On the other hand, a combinatorial sign like the one in the phrase *little star* also consists of a link between a signifié and a signifiant. As shown in Figure 2.2., the signifié consists of a conceptual relation and the signifiant of this combinatorial sign consists of the formal mark of this relation, in this case juxtaposition. That is, in *little star*, the semantic relation of modification that holds between the words LITTLE and STAR is conveyed by the physical juxtaposition of these two words, and the association between these two relations (one conceptual and one perceptual) constitutes a sign (in press, p. 121-122).

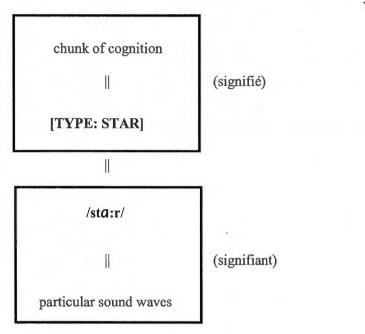


Figure 2.1 Illustration of the U-sign STAR (adapted from Bouchard, in press, p. 103)

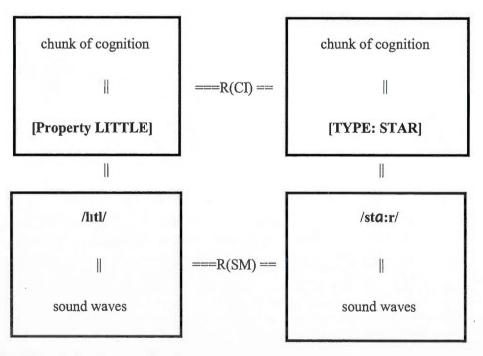


Figure 2.2 Illustration of the C-sign of modification in *little star* (adapted from Bouchard, in press, p. 121-122)

As a set of associations between forms and meanings, language interfaces with two systems: the sensorimotor system (SM) and the conceptual-intentional system (CI), i.e. general cognition. Bouchard argues that since signs are made up of two substances - percepts and concepts - observations from the sciences which study these two systems are logically anterior to linguistics (Bouchard, 2002, p. 2). Crucially, he argues that we should expect many (if not all) properties of language to derive from general properties of those two systems, and that linguists should seek explanations for linguistic phenomena which are externally motivated, i.e. founded on properties of the two interfaces, before postulating properties unique to the faculty of language. This is expressed in his Substantive Hypothesis: "The most explanatory linguistic theory is one that minimizes the elements (ideally to zero) that do not have an external motivation in the prior properties of the perceptual and conceptual substances of language" (Bouchard, in press, p. 120). The absence of such external motivation, he claims, has been a major weakness contributing to the failure of many analyses proposed by theories such as generative grammar. The latter seeks to explain many syntactic phenomena by proposing formal elements (e.g. functional categories, uninterpretable features) that merely reformulate the explananda rather than seeking explanations in logically anterior properties (Bouchard, 2002, p. 27-33).

Crucially for the present study, Bouchard's neo-Saussurean approach shows that by taking into account the properties of the Saussurean sign and properties of the two systems on which language is based, we can explain why languages *vary* in precisely the ways they do. Because the signifiants and signifiés of linguistic signs are made of radically different substances (percepts on the one hand and concepts on the other), the link between them has no logical motivation, i.e. it is arbitrary in the Saussurean sense (Saussure 1916, p. 155-156; Bouchard, in press, p. 103-104). Moreover, the signifiants and signifiés themselves are arbitrary, in that the SM offers several different possible means to provide a form for a given concept, and the CI often offers several different ways to conceptualize the same reality. Finally, there are several different possible ways to relate a concept to a perceptual form. Crucially, since the forms, meanings and form-meaning mappings made possible by the SM and CI are equally optimal, different languages make different choices among these options, giving rise to the variation observed across languages (Bouchard, 2002, p. 34-40). However, languages also

vary within certain bounds: the possibilities of cross-linguistic variation are channelled by properties of the two systems with which language interfaces, and this gives rise to recurrent cross-linguistic patterns and structural regularities (Bouchard, 2002, p. 36).

Bouchard (2002) applies this reasoning to explain variation of syntactic phenomena across languages. For example, he points out that given the properties of the CI-SM interface, language offers several different ways to mark Number, all of which are equally optimal (given Saussurean arbitrariness). This arbitrariness gives rise to variation: English marks Number on the noun, while French marks it on the determiner. This single difference in turn gives rise to a multitude of syntactic differences. For example, since both languages use Number as a means to narrow the set of individuals to which a noun can refer (i.e. to "atomize" the noun's meaning), the Number-bearing element is typically required in the NP. Hence, omission of the noun from the NP is acceptable in French, while omission of the determiner is acceptable in English.

Bouchard also shows that this difference in the marking of Number accounts for crosslinguistic differences in adjectival modification. As the author points out, both English and French establish the relation of ADJ-N modification through juxtaposition of the ADJ and N. Moreover, both are head-first languages, so the N should precede the ADJ within the NP. However, the difference in Number-marking brings about a cross-linguistic difference in the relative order of adjective and noun. Since French expresses Number on the Det, a postposed ADJ is free to apply directly to the whole meaning of the N, as in (77) below; when it is preposed, it is interpreted as applying to a subpart of the N's meaning, as in (78), where ANCIEN applies to the component specifying at what time the N property holds true. In other words, the two word orders that are logically possible under the linearity imposed by the oral modality of the SM (N-ADJ and ADJ-N) are signifiants for two types of semantic relations between adjective and noun (modification of the whole network of meaning or of a subpart). English, on the other hand, specifies Number directly on N, so a postposed ADJ combines with N+Number and thus with a noun whose meaning is already atomized. In order for the ADJ to apply solely to the N's meaning, it must therefore be preposed (i.e. placed in the only other position allowed by linearity). Hence, unlike French, a preposed ADJ (as in (79)) is ambiguous between an interpretation involving modification N's global meaning (80) vs. a subpart of the N's meaning (81).

- (77) une église ancienne 'an old church'
- (78) une ancienne église

 'a former church'
- (79) an old friend
- (80) Interpretation 1: 'a friend who is aged'
- (81) Interpretation 2: 'a friend for a long time'

In addition to demonstrating that the neo-Saussurean approach provides a powerful means of accounting for cross-linguistic variation based on logically anterior properties of the substances from which language is formed, this analysis of the compositional semantics of adjectival modification shows that the theory is well adapted to the study of polysemy. That is, by showing that the polysemy of French adjectives results in a predictable way from the noun's and adjective's single lexical meaning and the semantic relation that links them (i.e. the *signifié* of the combinatorial sign), Bouchard's analysis stands as evidence of this theory's ability to explain how a monosemous word interacts with its sentential environment to yield multiple, specific interpretations.

Thus, in my analysis I adopt the neo-Saussurean Sign Theory of Language as a conceptual framework to explain why polysemy varies, and why it varies in precisely the way it does. In keeping with this theory, the present dissertation adopts the assumption that given the Saussurean arbitrariness of the linguistic sign and its components, cross-linguistic variation follows from the fact that individual languages make different choices among the equally optimal elements made available by the two logically anterior systems with which language interfaces. More specifically, since the present study focuses on lexical semantic content, I assume that causes for variation are to be sought in the fact that the same extra-linguistic situation (e.g. motion) can be expressed via several different conceptual elements made available by the CI, i.e. general cognition.

2.2 Hypotheses

The theoretical framework of the present dissertation consists of Bouchard's (1995) monosemist approach to word meaning and Bouchard's (2002, in press) Sign Theory of Language. In line with the former, this study will adopt the default view that words tend to have only a single meaning in the lexicon. In line with the latter, I will take the Saussurean sign as a starting point for inquiry into cross-linguistic variation (more specifically, lexical semantic variation). In the present section, I discuss this study's research questions in light of the theoretical assumptions laid out above, showing the hypotheses that follow from them.

2.2.1 Question 1: Are English and French deictic motion verbs monosemous?

We saw that there are several general reasons to adopt the default assumption that a multisense word has only a single, highly abstract meaning in the lexicon. The most important of these are the following:

- Monosemy provides a way to explain regular polysemy, i.e. patterns of polysemy relations that occur from one word to the next and from one language to the next.
- Fuzzy boundaries between the various senses of the same word suggest that these senses are not lexicalized entities.
- The polysemist view leads to the risk of uncontrolled proliferation of postulated lexicalized meanings.
- Abstract monosemy eliminates redundancy between lexical meaning and world knowledge, as well as between the various senses of the same word, a desirable outcome from the standpoint of representational economy.

In addition to these arguments, within a neo-Saussurean perspective there are at least two major reasons to expect multifunctional words such as deictic motion verbs to be monosemous. First, the association between the signifiant and the signifié is necessarily arbitary, and thus each sign presumably constitutes a greater burden for long-term associative

memory than a motivated association. It follows that optimal language design would involve the smallest possible number of such arbitrary associations³². Thus, the arbitrariness of the linguistic sign (following from the disparity between CI and SM) leads to the prediction that each word form will be linked to a single meaning, and that such meanings will tend to be highly abstract, as in the strong monosemist view.

Second, abstract monosemy is the logical extension of a fundamental property of the linguistic sign and its components: independence with respect to context. Unlike the units of animal communication, the human linguistic sign is not rooted in a specific situation: it can change referents and be used in absentia. According to Saussure, while a word's pronunciation is subject to constant variation from one utterance to another, the underlying significant is a stable, abstract representation in the mind, an "acoustic image" rather than an actual string of sounds (1916, p. 98). Crucially, the same reasoning applies to the signifié; just as a stable, abstract signifiant gives rise to an infinite number of different acoustic manifestations, a stable signifié can give rise to a potentially infinite number of surface manifestations, i.e. senses, as surrounding context varies. Moreover, just as the signifiant is inaccessible to direct observation, we can expect the signifié to also be inaccessible to such observation. This concords with Ruhl's (1989, p. 132-135) claim that lexical meaning is not accessible to consciousness, and that conscious reflection actually distorts lexical meaning. Bouchard's model of the linguistic sign insists on this invariant character, distinguishing between the lexical meaning proper and the chunk of conceptual material to which the signifié corresponds in a given contextualized use of the sign (see the illustration of the signs STAR and LITTLE in Figures 2.1 and 2.2 above).

These considerations lead to the following hypothesis in response to my first research question.

³² See also Bouchard's (manuscript) discussion of mutual exclusivity and the tendency toward the formation of one-to-one mappings in the system of signs.

(82) **Hypothesis 1**: General English and French deictic motion verbs (e.g. COME, GO, VENIR, ALLER) are monosemous; all of the senses of each verb are the contextual product of a single, abstract lexical semantic representation.

2.2.2 Question 2: Why do these verbs show cross-linguistic sense similarities?

This second question emerges from the observation that despite their multiple differences, polysemous translation equivalents nonetheless often share not one, but several senses. For example, English COME, French VENIR and Malagasy AVY can all be used to express not only motion, but also abstract origin:

- (83) This word comes from French.
- (84) Ce mot vient de l'anglais.
- (85) Avy amin'ny teny frantsay izany teny izany. venir PRÉP-DÉT langue français ce mot ce 'Ce mot vient du français.'

As shown above, according to the Sign Theory of Language, cross-linguistic regularities and universals result from properties of the two systems with which language interfaces. As Bouchard points out, the *signifiés* of signs tend to be formed around categories present in general cognition:

We form a category on the basis of various sensory inputs. Given the ubiquity and centrality of categories in our cognitive system, it is not surprising that signifiés converge on them: these categories already organize our conceptual space and determine concentration points for some signifiés which capture the categorical unifications (Bouchard, in press: 219).

Thus, pre-linguistic concepts determine the general contours of lexical semantics, making certain parts of conceptual space privileged candidates to be part of the *signifiés* of signs. It follows that explanations for cross-linguistic regularities in the semantic phenomenon of polysemy should be sought in universal properties of general cognition.

Given this tendency of *signifiés* to converge on recurrent conceptual categories, and given the assumption that the content of motion verbs' meanings is highly abstract and results from the combination of a small number of components (see Bouchard, 1995, and Hypothesis 1 above), we can expect the cross-linguistic variation in the content of deictic motion verbs to

be quite limited. This expectation is supported by the evidence about the Malagasy verb AVY presented above (section 1.3.2): despite the important typological and genealogical distance separating Malagasy from French, both verbs were shown to be quite similar in the structure of their meaning. These observations lead to the following hypothesis.

(86) **Hypothesis 2:** Variation of the polysemy of deictic motion verbs is channelled by design properties of general cognition, giving rise to the semantic commonalities observed in deictic motion verbs across languages such as English and French.

2.2.3 Question 3: Why do these verbs show differences in their uses?

In this subsection, I discuss three possible sources for the cross-linguistic variation of deictic motion verb polysemy: 1) the interaction between Saussurean arbitrariness and properties of general cognition; 2) the abstractness of the monosemous signifié; and 3) cross-linguistic variation in grammar and lexicon.

2.2.3.1 Arbitrariness of the sign and properties of general cognition

I hypothesize that some differences in the polysemy of English and French deictic motion verbs result from the fact that the CI offers more than one way to form an abstract meaning from which a movement interpretation can be derived, with different languages being free (due to Saussurean arbitrariness) to make different choices among the various means provided by the CI.

This hypothesis follows from two observations. On the one hand, Saussurean arbitrariness applies not only to the association between signifiant and signifié, but also to the signifié itself: the boundaries of word meanings are neither universal nor fully pre-determined by thought, so languages are free to vary in how they draw the limits of a given lexical meaning (Bouchard, in press, p. 109). On the other hand, under the assumptions of the strong monosemist approach, so-called "motion" verbs (e.g. VENIR and COME) are abstract and contain no concept of movement or space at all. Thus, there may be more than one way to use the abstract primitives provided by general cognition to conceptualize or describe the same concrete, real-world movement situation. This idea receives support from the preliminary

evidence on Malagasy discussed above. Despite the differences in their intrinsic semantic content (VENIR expresses orientation toward the deictic center, AVY expresses orientation from the anti-deictic center), both verbs can be used to describe a situation of movement in space toward the location of the speaker, as in Jean vient and Avy Jaona, both roughly translatable as 'John is coming'.

2.2.3.2 Abstractness

I hypothesize that a second cause for the variation of polysemy lies in abstractness: very slight differences in the abstract, monosemous meanings of a pair of translation equivalents can have remarkable surface effects. That is, the interaction of a word's abstract meaning with extra-linguistic information gives rise to a multitude of disparate, seemingly random surface differences with respect to its cross-linguistic counterpart, making these two translation equivalents appear more radically different in meaning than they actually are. This hypothesis, like the preceding one, receives support from the results obtained for Malagasy AVY: two slight differences in the semantic representations of AVY and VENIR (nature of the constant, role played by the constant) suffice to explain a whole set of surface semantic differences.

2.2.3.3 Grammatical and lexical systems

Finally, I hypothesize that another cause for the variation in the polysemy of deictic motion verbs such as COME/GO and VENIR/ALLER lies in language-specific properties such as grammar and the network of lexical items available to act as arguments. In the strong monosemist view, senses, qua contextualized interpretations, do not depend solely on underlying lexical meaning. Rather, they are the product of the interaction of this meaning with world knowledge and contextual information. Crucially, context includes both discursive context and sentential context, and the latter includes both lexical environment (e.g. the words used as arguments of the verb in a given sentence) and grammatical environment (i.e. the rules or combinatorial signs governing the combination of words in a sentence). Thus, a verb's contextualized sense interpretation is partly determined by the

meanings of surrounding words (especially arguments) and by the language's grammatical system (tense, aspect, etc.). Since languages vary with respect to these two factors (i.e. no two languages have the same grammar and set of lexical meanings), these factors can be expected to bring about differences in the sense inventories of two cross-linguistic verbal equivalents such as COME and VENIR. In other words, certain sense differences between English and French deictic motion verbs can be expected to be either partially or completely attributable to differences in grammar or the lexicon. Given the arbitrariness of the linguistic signifié and the language-specific factors of grammar and lexical environment that interact with this signifié to produce surface interpretations, the possibilities for variation in polysemy for a given type of motion verb are presumably quite large. Indeed, in this perspective it would be an extraordinary coincidence if a highly polysemous word were found to have exactly the same set of senses as its counterpart in another language.

The above considerations lead to the following hypothesis in response to my third research question.

- (87) **Hypothesis 3:** English deictic motion verbs differ in sense inventory from their French counterparts for three reasons:
 - o General human cognition offers more than one abstract means to conceptualize the same real-world movement situation. Since these options are equally optimal, the choice among them is arbitrary, and therefore two languages such as French and English do not always choose the same option.
 - The underlying meaning of a deictic motion verb is highly abstract, so even a slight difference in meaning can produce multiple surface differences.
 - French and English differ with respect to grammar and set of lexical items available to serve as arguments; these factors give rise to sense differences either alone or in interaction with the verb's underlying meaning.

2.3 Methodology

In the present section, I describe the methodology used to verify the hypotheses laid out in the preceding section. I first present the procedure used for data collection (section 2.3.1), and then I briefly discuss how this data was analyzed (section 2.3.2).

2.3.1 Data collection

As announced above, the present dissertation aims to determine whether general English and French deictic motion verbs are monosemous as well as to compare the semantics of these verbs to determine the sources for their cross-linguistic sense similarities and differences. More specifically, this study focuses on four motion verbs generally considered to be deictic: the English verbs COME and GO as well as their French quasi-equivalents VENIR and ALLER³³. One reason for choosing these verbs is that they are among the most frequent and polysemous in these languages; they therefore constitute ideal items with which to test the monosemist approach. Although VENIR and ALLER are among the items in Bouchard's (1995) case study illustrating his monosemist approach, I have included them in my own data collection and analysis for three reasons. First, although Bouchard's analysis provides compelling evidence for the semantic representations he proposes for these items, his analysis does not take into account as broad a range of senses as I examine in the present study. Second, as I show in Chapter III, the semantic representations proposed in Bouchard (1995) present several problems, and these can only be addressed through a more extensive analysis involving more fine-grained sense distinctions than those involved in his analysis. Finally, in order to ensure a rigorous comparison of the translation equivalent pairs, it was necessary to adopt exactly the same data collection and analysis procedure for both languages. Hence, all

³³ To my knowledge, the only cross-linguistic comparative study focusing on this same set of verbs is Winston (1988). Crucially, however, the latter focuses solely on the verbs' 'motion' uses and thus largely ignores these verbs' polysemy.

steps of the data collection and analysis were carried out for both English and French in a parallel fashion.

As scholars like Ruhl (1989) and Pustejovsky (1995) observe, in the analysis of a word's semantics, ever more detailed background and contextual information can always be introduced or modified to create ever finer-grained sense distinctions. Consequently, the number of possible senses for a given word is potentially infinite, and it is thus methodologically infeasible to identify and examine *all* of a given word's senses. Thus, in present study I aimed to identify a sufficiently large set to test my hypotheses very explicitly.

In order to obtain as broad a portrait as possible for the semantic uses of each verb, my data collection involved the consultation of dictionaries, corpora and speakers. As Ruhl (1989) points out, analyses of word meaning (and in particular, polysemy) need to take into account as large a sample of uses as possible, and corpora can reveal valid senses that dictionaries neglect. The first stage of my data collection consisted of dictionary consultation. I consulted three dictionaries for each language. The dictionaries chosen for English were: 1) Merriam-Webster's Third New International Dictionary Unabridged, 2) the Oxford Dictionary of English, and 3) the Longman Dictionary of Contemporary English. The dictionaries used for French were: 1) the Grand Robert de la langue française, 2) the Trésor de la langue française, and 3) Lexis: le dictionnaire érudit de la langue française. These particular dictionaries were chosen for the following reasons: 1) each is widely used and generally considered to be among the most reliable descriptions of modern English and French; 2) each is synchronic in perspective (a crucial characteristic for the present study, whose perspective is a purely synchronic study of the polysemy of the verbs in question); 3) their definitions and sense divisions provide a highly detailed treatment of the words' semantic potential. The latter characteristic is of capital importance, since my aim was to carry out a very finegrained analysis in order to expose the sources of subtle semantic variations arising from one context to another. All information about the meaning and usage properties of the verbs was extracted from the dictionary entries and then used to construct a data base consisting of a preliminary list of acceptable senses for each verb. In general, in determining sense boundaries, I maintained the sense division proposed by whichever dictionary made the finest sense distinction. Senses and constructions that were marked as archaic or regional were

generally set aside. This was done in order to avoid the inclusion in my analysis of senses that are subject to inter-speaker variation (due to regional dialect, sociolect, technical terminology, archaic uses, etc.).

In general, multi-word verbal expressions that were either explicitly marked as idiomatic expressions in the dictionaries or that I judged to be potential idiomatic expressions were also set aside and thus excluded from the analysis. Such expressions were numerous, for general, highly frequent motion verbs like COME and GO enter into a large number of multi-word verbal expressions (e.g. What is going on?, They have been going out for two months, His idea didn't go over very well at the meeting, Go for the gold, Paul doit s'en aller, Ça va de soi, Il en va de même pour..., etc.). Expressions like these present a particular challenge for analysis: in order to be able to determine the limits of what the verb itself (GO, ALLER, etc.) contributes to the semantics of the whole expression, we need to have an idea of what is being contributed by the other elements (ON, OUT, OVER, etc.), and often these elements are themselves highly polysemous. Moreover, the fixed character of these expressions strongly suggests that they are lexically stored and thus quite possibly semantically noncompositional, making it methodologically undesirable to include them in an analysis seeking to identify the productive, core lexicalized meaning of each individual motion. For these reasons, such potentially non-compositional expressions were excluded from the subsequent steps of my data collection (i.e. corpus and speaker consultation) as well as the analysis itself.

The next stage of my data collection consisted of corpus consultation. Using the web site Glossa Net³⁴, I collected a total of 500 occurrences for each of the four verbs from a set of newspapers published online³⁵. The latter consisted of ten publications per language with the aim of providing a mixture of registers and themes. Thus, alongside serious publications (e.g. *Le Monde, New York Times*), the corpus contained occurrences from tabloids (e.g. *Voici, The Sun*). The newspapers used were the following:

³⁴ http://glossa.fltr.ucl.ac.be/

³⁵ The occurrences were collected from the articles published online during two periods: from March 22 to 24, 2012, and then from April 14 to 23, 2012.

Table 2.1 Periodicals used for the corpus

French		English	
Source	Country	Source	Country
Le Monde	France	New York Times	US
Libération	France	International Herald Tribune	US
Nouvel Observateur	France	Newsweek	US
La Tribune	France	Financial Times	UK
Figaro	France	Washington Post	US
Le Parisien	France	Las Vegas Sun	US
La Presse	Canada	The Times	UK
Dernière Heure	Belgium	Guardian	UK
La Meuse	Belgium	Sydney Morning Herald	Australia
Voici	France	The Sun	UK

Next, the corpus occurrences were placed in an Excel file, and in this file I used the inventory of combined dictionary senses from my data base to tag the occurrences in the corpus. All dictionary senses that were used at least once to tag a corpus occurrence were retained as acceptable. When sentences were not matched by any available dictionary sense, I created new senses for them and set them aside to be verified. It should be noted that among the uses observed in the corpus, only a very small number fell outside the sets of senses provided by the dictionaries.

The final stage of my data collection consisted of speaker consultation and was carried out via informal questionnaires. The goal of this consultation was to test: 1) dictionary senses of whose widespread acceptability I was uncertain; 2) the senses that had been created based on

untagged corpus occurrences; and 3) any sense that had not been attested (in a dictionary or corpus) for one language (e.g. French) but had been attested in the other (e.g. English). The sentences for dictionary/corpus-attested uses were either taken directly from the dictionary/corpus (sometimes in a modified form) or created. For each of the senses attested in one language but not the other, the test sentence consisted of a direct translation of an acceptable sentence (either created by myself or taken from a dictionary or the corpus) in the other language.

These brief questionnaires (one per language) were filled out in Excel format by native English and French consultants (three per language), who were asked to provide acceptability judgements ("acceptable", "marginal", "unacceptable") for each example sentence (some of which were accompanied by an indication of the sentence's intended meaning in parentheses, wherever I considered this necessary). In the case of senses coming from a dictionary or the corpus, those rejected by at least two respondents were considered rare or marginal and were excluded from my analysis. In the case of senses that were unattested in dictionaries or the corpus and had been "invented" via translation, each sentence that was approved by at least two respondents was retained for analysis; all sentences rejected by at least two informants were excluded from my analysis, under the assumption that they reflected either erroneous use or highly marginal (i.e. non universal) uses of the verb. A sentence was retained and marked as marginal in my data base if: a) at least two informants marked it as "marginal"; or b) at least one informant marked it as "marginal" and at least one informant marked it as "acceptable". The results of the questionnaire were entered into my data base, with the fully accepted senses being retained for analysis.

The above stages of data collection resulted in the definitive list of acceptable senses for each verb given in Appendices A through D³⁶. The salient cross-linguistic similarities and

³⁶ Note that during the analysis process, certain modifications and refinements were made to the sense lists based on my own intuition as well as comments made by my dissertation advisor as to the (un)acceptability of certain semantic uses. These modifications are integrated both in the analysis (Chapters IV and V) and in the definitive sense lists presented in Appendices A through D.

differences in the semantic uses of these verb pairs are shown in Appendices E (COME and VENIR) and F (GO and ALLER). These senses are discussed in detail in the analysis presented in Chapters IV and V.

Before moving on, it should be pointed out that the sentences obtained from the dictionaries and corpora play a limited role in the analysis presented in Chapters IV and V, for two reasons. First, despite the variety of sources used in the corpus, the fact that only newspapers were used nonetheless placed a severe limit on the diversity of senses uses represented in the occurrences, since journalistic texts tend to center on recurrent themes and tend to use the same basic style of writing. As a result, examination of the corpus led to the discovery of only a very small number of uses that were not already described in the dictionaries. Thus, although the corpus allowed me to validate the existence of certain dictionary-attested uses, the corpus data did not lead to a significant contribution to my analysis in terms of new senses³⁷.

Second, it should be noted that the main goal of the collection of sentences from dictionaries and the corpus was to establish the definitive list of acceptable senses for each verb. Given that the present dissertation is a comparative study aiming to show precisely how specific semantic uses are obtained from a single invariant meaning, it proved very important in my analysis to use carefully controlled examples clearly showing the role of the co-textual factors contributing to a given semantic interpretation for a verb. Thus, although some of the dictionary and corpus sentences do appear (either in original form or modified to fit my purposes) in my analysis chapters, the majority of the example sentences given in these chapters have been created for the purpose of this dissertation. Crucially, however, each such "invented" sentence was created to illustrate a general semantic use already established via the procedure described in the present section.

³⁷ In a future study aimed at discovering additional semantic uses, it would be necessary to use a corpus that is both larger and composed of a greater variety of text types in order to ensure a greater diversity of themes and registers.

2.3.2 Data analysis

As stated above, the present study aims to 1) identify the underlying meaning(s) of the four verbs COME, GO, VENIR and ALLER; 2) determine the causes for the observed sense similarities; and 3) determine the causes (underlying meaning, context, background knowledge, etc.) for the observed sense differences.

To do this, I analyzed the senses retained in my data base, proposing one abstract semantic representation for each verb. This process involved several successive modifications to the representations, as I tested the ability of the latter to correctly predict the acceptability and unacceptability of senses as reflected by the data obtained in the above procedure. In line with the neo-Saussurean framework (Sign Theory of Language) adopted in this study, the semantic components used in these representations are grounded in properties of the CI (i.e. general cognition) with which language interfaces. For each of the non-shared senses (English-only and French-only senses), I re-examined example sentences (both those from my data base and newly created sentences aimed at testing the effects of small contextual variations) in order to determine the causes (missing component in the semantic representation, grammatical or lexical environment, etc.) for the sense's unacceptability in one of the two languages.

Having presented the methodology used to identify both the sets of specific senses of these verbs and the intrinsic lexical semantic content of each, I turn in the next chapter to a presentation of the latter. I then go on in Chapters IV and V to show how the specific senses of each verb are obtained in context from the verbs' monosemous representations.

CHAPTER III

THE SEMANTIC CONTENT OF DEICTIC MOTION VERBS

In this chapter, I present my analysis of the semantic content of the verbs COME and GO as well as their French counterparts VENIR and ALLER. As mentioned above (section 1.2.2.2), the unified semantic representations proposed by Bouchard (1995) for French motion verbs serve as a starting point for my analysis. However, because certain aspects of Bouchard's semantic representations pose problems involving explanatory adequacy and theoretical motivation, I propose certain modifications to these representations. More generally, in line with the Sign Theory of Language (Bouchard, 2002, in press), which emphasizes the need to take into account the design properties of language imposed by the logically anterior properties of the interfaces (in particular, the properties of the CI), I propose representations whose primitives are grounded in general cognition. As I show in Chapters IV and V, these externally motivated components allow us to account both for the similarities and the differences in surface behavior between the English verbs and their French counterparts. Thus, in line with my Hypothesis 3 (see section 2.2), variation of polysemy is channelled by properties of general cognition, giving rise to the semantic commonalities observed in motion verbs across English and French.

I show in the present chapter that each of these four verbs (COME, VENIR, GO, ALLER) is made up of three main components: 1) orientation, 2) the deictic/anti-deictic center, and 3) a relation established between a variable and the deictic/anti-deictic center. In sections 3.1 through 3.3, I discuss each of these semantic components in turn, defining them and showing how they are motivated by properties of general cognition. Then, in section 3.4, I conclude by identifying the semantic representation of each of the four verbs, showing that the latter are monosemous.

3.1 Orientation

In Bouchard's (1995) case study of French motion verbs (VENIR, ALLER, ARRIVER, PARTIR, ENTRER, SORTIR), the author argues that each of the verbs has a single meaning structured not around the concrete notion of movement, but rather the abstract, domain-independent notion of 'orientation'38. As shown above (section 1.2.2.2), because this notion of abstract orientation is domain-independent, it can account for the fact that verbs like VENIR and ALLER describe not only spatial situations, but also abstract situations (such as futurity, anteriority, abstract origin, etc.).

Bouchard argues that VENIR and ALLER have the semantic representations in Figures 3.1 and 3.2 below, respectively. The concept of orientation is not explicitly represented as a primitive in these representations. Rather, he claims that it derives from properties inherent in the semantic representation's tree structure. Each of these semantic representations has an X-bar structure and thus consists of two relations, one embedded in the other. Bouchard argues that due to properties inherent in the tree structure, Figures 3.1 and 3.2 express that x_1 , the highest argument, corresponding to the grammatical subject in syntax, is 'oriented' toward the lower relation. In addition, the variable x_1 binds x_2 , so it is co-referential with x_2 . Thus, these representations express that 'X is oriented toward X's being related to o/ ω ' (p. 60-68, p. 121, p. 150).

³⁸ This concept is not to be confused with Jackendoff's primitive function ORIENT, which describes spatial orientation along a path and is claimed to enter into the semantics of verbs like POINT in the sentences like *The sign points across the river* (Jackendoff, 2002, p. 362).

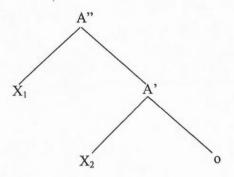


Figure 3.1 Semantic representation of VENIR (Bouchard, 1995, p. 121)

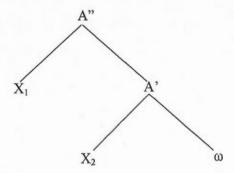


Figure 3.2 Semantic representation of ALLER (Bouchard, 1995, p. 150)

The idea that the semantic representations of verbs have an X-bar structure derives from Bouchard's (1995) goal of explaining how semantic structure interfaces with syntactic structure. However, in Sign Theory of Syntax (the syntactic component of the neo-Saussurean theory of language, Bouchard, in press), syntactic structure is argued to be composed solely of combinatorial signs, i.e. associations between a perceptual element (such as linear juxtaposition) and a conceptual element (i.e. a semantic dependency relation between two elements in a sentence). In this view of syntax, elements like X-bar structure are mere artefacts of the formalism used in generative grammar. If X-bar is evacuated from syntax, there is no reason to assume that lexical meanings have such a structure. In other words, the independent motivation offered by Bouchard (1995) for the concept of 'orientation' no longer holds.

In a neo-Saussurean view, the properties of language derive largely (perhaps entirely) from the substances of the systems with which language interfaces: the SM and the CI. Thus, the primitives from which lexical meanings are built are provided by general cognition. As a result, elements of word meaning can be expected to reflect properties belonging to cognitive systems outside language. Bouchard (1995, p. 67-68) himself suggests that orientation is a property of general cognition, "an organizing concept" that the human mind uses to conceptualize the input we receive via our perceptual experience of the world. Crucially, orientation is viewed as a concept that pre-exists percepts (i.e. it does not emerge from them). This view is in opposition to space-based approaches such as Cognitive Semantics, for the latter attributes a central role to perceptual experience of the world in shaping linguistic meaning (see Lakoff, 1987, and Croft and Cruse, 2004, among others, on the notion of embodiment).

I propose that the notion of orientation is founded on the notion of magnitude. Walsh and colleagues (e.g. Walsh, 2003; Bueti and Walsh, 2009) present evidence that there is a common, domain-independent system of general magnitude in the brain that is involved in processing across such diverse cognitive domains as space, time, number, and action. These authors discuss a wide range of psychological and neurological evidence in support of their theoretical approach (A Theory of Magnitude, ATOM), citing various behavioural findings that show interferences between domains such as space and time, or time and number, in both children and adults. For example, they point to findings that children judge larger objects to be moving faster than smaller objects, as well as results showing that the time estimates of adults for the duration of presentation of a digit were affected by the numerical magnitude of the digit. In addition, these authors point to neurological findings showing that a common brain system, situated in the parietal cortex, is active during the processing of situations across these domains.

We can characterize abstract orientation generally as a tendency of increasing potential towards being in a given a state. The notion of increase is founded on the general concept

'more'³⁹, a concept which Walsh suggests is at the heart of the general magnitude system operating across domains (Walsh, 2003, p. 484). Decomposing orientation in terms of *magnitude* ('more and more') and *potential*, I propose the following definition of the concept 'orientation'.

(88) Definition of 'orientation':

'X is oriented toward a state S' = 'X has an increasing potential to be in state S'

The fact that orientation derives from a domain-independent system accounts for the observation that the verbs containing this primitive can be used to describe relations in such diverse domains as space (Max vient chez nous demain; Max is coming to our place tomorrow; Cette route vient de Montréal; This road comes from Montréal) and time (Louis vient de manger; L'année qui vient; The coming year). Since orientation derives from an innate, domain-independent cognitive system of abstract magnitude, it is a property that all humans possess. This leads to the prediction that this same semantic primitive should be found to play a role in numerous word meanings across languages. As I show in section 3.4, this primitive is at the heart of not only the meanings of French motion verbs like VENIR and ALLER, but also the meaning of their English counterparts COME and GO. (Also see section 1.3.2 above, where I provide evidence that the semantics of Malagasy AVY 'come' is based on this same primitive.)

In the present study, the concept of orientation will be formally represented by an arrow (though this arrow is not to be interpreted as expressing spatial properties), as in (88). This

³⁹ The concept 'more' is a recurrent semantic primitive in different theoretical approaches to semantics. See Mel'cuk (1989) and Wierzbicka (1989), as well as Cognitive Linguistic studies such as Lakoff and Johnson (1980), where this concept plays a role in conceptual metaphors (e.g. MORE IS UP). Note that the early appearance of words like MORE in L1 acquisition supports the idea of status of this concept as a primitive.

representation expresses that X is oriented toward being in some state or relation (represented here by the marker S)⁴⁰.

(89) 'Orientation':

3.2 The deictic and anti-deictic centers

In addition to orientation, the verbs COME, GO, VENIR and ALLER contain a second semantic component: the deictic center (o) and its negative counterpart, the anti-deictic center (ω). In the present section, I first discuss the traditional formulation of the content of the deictic center ('me-here-now'), showing why it is inadequate for the description of deictic motion verbs (section 3.2.1). Rejecting this formulation, I demonstrate instead that the constant contained in these verbs decomposes into two basic concepts: 'Subject of Consciousness' and 'accessibility'. In sections 3.2.2 and 3.2.3, I examine these two primitive notions in turn and show how they are motivated by properties of general cognition.

3.2.1 Traditional formulation of the deictic center: 'me-here-now'

The deictic center, also known as the *origo* and often symbolized as o, is traditionally defined as a constant whose content is 'me-here-now'⁴¹. Under this formulation, this constant contains three facets: spatial 'here', temporal 'now' and the abstract, identificational facet 'me'. In addition, Bouchard (1995) proposes the complementary notion of anti-deictic center, a constant symbolized as ω and defined as 'NOT-me-here-now'.

⁴⁰ This symbolic representation of the notion of orientation should not be confused with image-schema representations such as those of Langacker (1987, 1991), who proposes the notion of "abstract motion".

⁴¹ Bastonnais (2000) points out that this widely used formulation of the deictic center goes back to texts such as Kerbrat-Orecchioni (1980), Berthoud, (1983) and Buhler (1990).

Bouchard (1995) shows that this multi-faceted formulation of the deictic and anti-deictic centers helps account for the fact that polysemous deictic verbs such as VENIR and ALLER can be used across different domains like space, time, origin, etc. He argues that the facet that is selected depends on the domain in which the verb is construed. Thus, if contextual information and background knowledge bring us to construe VENIR in the spatial domain, the deictic center is interpreted in its 'here' facet (e.g. in *Max vient de Paris demain*). If instead VENIR is interpreted in the temporal domain (e.g. in *L'hiver vient vite cette année*), the deictic center it is the 'now' facet that is selected. Finally, when context and extralinguistic information favor an interpretation of VENIR in another, abstract domain (as in *Ce mot vient du grec*), it is the identificational 'me' facet that is selected.

However, the 'me-here-now' formulation of this constant (and its negative counterpart) poses two important problems. First, a multi-faceted semantic component introduces complexity into the representation, with different uses resulting in part because of different subparts of the semantic representation being selected. In such an analysis, although the multiple uses of a polysemous deictic word are not placed in separate entries, these multiple uses are nonetheless in a sense moved inside a single, complex entry. One crucial assertion of strong monosemist approaches (e.g. Ruhl, 1989; Bouchard, 1995) is that it is a mistake to build background knowledge into a word's lexical meaning. I argue that this same point holds for sub-lexical meaning components like the deictic center: it is a mistake to build into them pieces of knowledge that actually depend on background knowledge. Such a solution goes against the general principle of economy guiding the strong monosemist position, since it displaces the complexity of polysemy to the inside of the semantic representation rather than eliminating this complexity altogether (see my criticism of Pustejovsky's approach in section 1.1.2). Thus, although the inferential system could plausibly access sublexical elements, ultimately, a solution which posits internal complexity (where not all lexical or sublexical components are always selected) is less parsimonious than a simple representation whose internal components are more general and in which all of the components are always accessed when the word is used.

A second problem arising from the characterization of the deictic center as 'me-here-now' is that it incorrectly predicts that words containing this constant (e.g. COME, VENIR) will pattern like the words corresponding to each of its facets, e.g. English ME, HERE, and NOW or French MOI, ICI, and MAINTENANT⁴².

For example, in the situations described by (90) and (91) below, the result of the movement event cannot be paraphrased as 'X is here'. In (92), the orientation is not toward a temporal point describable as 'now', but toward a time in the future (established by the verb's morphology). Finally, in (93), the fortune is not oriented toward the speaker 'me', but rather toward a third person, Jean.

- (90) Je vais au magasin. Veux-tu venir?
- (91) Je viendrai te voir demain.
- (92) L'hiver viendra plus tôt l'année prochaine.
- (93) La fortune de Jean vient de sa tante.

In order to account for "extended" cases like these⁴³, certain scholars have proposed pragmatic devices allowing the deictic center to be transferred onto non-prototypical referents. Lyons (1977, p. 579) calls this phenomenon "deictic projection". Likewise, Bastonnais (2000, 2001) claims that the deictic center can be *transposed* elsewhere than the speaker, towards another person or location that serves as a temporary reference point. This, she argues, gives rise to the simultaneous presence, for a single utterance, of two deictic centers: α (the original deictic center associated with the speaker) and β (the transposed deictic center associated with someone other than the speaker, or some location other than the speaker's location) (2000, p. 71-72). For example, in (90) above, the deictic center is transposed onto the speaker's future location, while in (91), it is transposed onto the hearer's location.

⁴² I assume that the concepts 'me', 'here' and 'now' must be taken to correspond to the meanings of the corresponding lexical units in English, French, etc.

⁴³ For a detailed discussion of the flexibility of deictic motion verbs, see Fillmore (e.g. 1966, 1971, 1975).

Although this mechanism provides an account for non-prototypical uses of the deictic center defined as 'me-here-now', it presents at least two disadvantages. First, the proposed mechanism leads to overgeneration. As Bastonnais (2000, p. 81) herself points out, transposition of the deictic center to a third person (e.g. Je sais que Paul va à la montagne, et j'ai décidé de venir), while logically possible, leads to highly variable acceptability judgements from one speaker to the next. Observations like this suggest that mechanisms like deictic transposition are too unconstrained to account for the actual limits of the deictic center's possible reference in usage.

Second, from a theoretical standpoint, the deictic transposition hypothesis is unparsimonious because it requires the postulation, in addition to an internally complex 'me-here-now', of an auxiliary pragmatic mechanism that generates new deictic centers. A truly economical solution would be one in which the deictic center is internally simple and in which no special pragmatic mechanism is required to account for its non-prototypical uses. This lexical semantic solution echoes Goddard (1997), who argues that the best solution is to make the semantic content of the verb's entry general enough to cover not only first-person uses, but also all of the verb's "extended" uses.

Thus, I propose that the deictic center o contained in the semantics of COME/VENIR (as well as the anti-deictic center in GO/ALLER) does not decompose into specific facets such as the lexical concepts 'me', 'here' and 'now'. Rather, it is composed of two abstract concepts that are both rooted directly in general cognition: 'Subject of Consciousness' and 'accessibility'. Hence, I propose to define the deictic and anti-deictic centers as follows.

- (94) Deictic center o: 'a point that is accessible to a Subject of Consciousness'
- (95) Anti-deictic center ω : 'a point other than the deictic center'

Note that these definitions are being proposed only for deictic motion verbs. That is, for the moment I am not making the claim that this same primitive is contained in the semantic representations of other deictic words (e.g. demonstratives such as THIS and THAT, locatives such as HERE and THERE, personal pronouns such as ME, temporal expressions such as NOW and THEN, etc.).

Having now defined the deictic center in terms of 'Subject of Consciousness' and 'accessibility', I devote the next two sections to an examination of these concepts, showing how they follow from properties of general cognition.

3.2.2 The concept 'Subject of Consciousness'

The reason why the deictic center o contained in COME/VENIR can refer to a point associated either with the speaker or with a person other than the speaker is that this constant is not intrinsically defined in terms of the speaker 'me'. Rather, it contains the more general concept 'Subject of Consciousness'. According to Ruwet (1990), every sentence expresses a Content of Consciousness (CC), and this presupposes a corresponding Subject of Consciousness (SC). Crucially, this SC is neutral between speaker and hearer: it is not intrinsically defined in terms of either of these participants of the utterance event. Moreover, Ruwet shows that in addition to the SC and CC corresponding to the sentence as a whole (SC₀ and CC₀, respectively), additional CCs can be embedded within a sentence. Each of these internal CCs corresponds to its own SC, and the latter can be either identical to or distinct from SC₀. Thus, in (96) through (98) (Ruwet's examples 12b-d, p. 55), verbs describing speech acts or mental attitudes introduce CCs, each one corresponding to its own distinct SC. Consequently, Bouchard (1995) defines these concepts independently of the notions 'speaker' and 'hearer' as follows: "A Subject of Consciousness is an entity to which the speaker attributes consciousness (including himself and the person he is talking to). A Content of Consciousness is what the speaker presents as being part of an entity's consciousness" (p.299).

- (96) $Paul_{SCI}$ prétend que (Max_{sc2} croit que (Dieu est mort) $_{CC2}$) $_{CCI}$.
- (97) Il lui_{SCI} semble que (la terre a tremblé)_{CCI}.
- (98) Émile_{SCI} souhaite que (Sophie l'aime un jour)_{CCI}.

Ruwet (1990) shows that the notions SC and CC account for syntactic phenomena such as the distribution and reference of the French locative pronouns EN and Y⁴⁴, proposing the following constraint: "If EN or Y are in a clause expressing a content of consciousness CC_i, EN and Y cannot be co-referential with the N'' that represents the Subject of Consciousness SC_i of CC_i" (p. 56). Thus, a sentence like (99) is unacceptable because EN is part of the CC 'que Sophie en est amoureuse', and this CC belongs to the SC named by the noun phrase Émile. The sentence can only be made acceptable if EN is replaced by de lui, as in (100), for LUI is not subject to Ruwet's constraint. In contrast, in sentence (101) the NP ce livre with which EN is co-referential does not refer to an entity capable of consciousness, and thus ce livre is not an SC to which the CC expressed by the embedded clause belongs. As a result, the sentence is fully acceptable (p. 56-58).

- (99) *Émile suppose que Sophie en est amoureuse.
- (100) Émile suppose que Sophie est amoureuse de lui.
- (101) Pour être bien compris, ce livre suppose qu'on en ait soigneusement étudié le plan.

As Bouchard (1995) points out, the concepts Subject of Consciousness and Content of Consciousness also play a crucial role in explaining certain properties of Psych constructions. He observes that verbs such as French FRAPPER and English STRIKE are capable of expressing situations where one entity affects another either concretely or abstractly, as in (102) and (103) below, and their English equivalents (104) and (105). This, he argues, is

⁴⁴ He also shows that the notions 'Subject of Consciousness' and 'Content of Consciousness' are responsible for a similar constraint on the distribution and reference of insult expressions, e.g. *Paul pense qu'on va renvoyer ce salaud vs. Le copain de Paul pense qu'on va renvoyer ce salaud (Ruwei, 1990, p. 67-71).

because the verbs in question do not intrinsically express any information about either a spatial or psychological relation. Rather, they are monosemous and intrinsically express only an abstract, domain-independent relation of *contact* between two entities. When context indicates that the relation is established in physical space between two concrete entities, the verb is construed as describing physical contact, as in examples (102) and (104). When, instead, the situation involves contact between a psychological entity (i.e. a "psy-chose") and "an entity capable of hosting the emotion or feeling that the psy-chose refers to", the resulting interpretation is that the contact occurs not in physical space but rather in *mental space*, as in examples (103) and (105) (p. 269-274). In the latter case, Marie/Mary is treated as a concept and thus as part of the Content of Consciousness of Paul.

- (102) Marie frappe Paul avec un marteau.
- (103) Marie frappe Paul par son intelligence.
- (104) Mary strikes Paul with a hammer.
- (105) Mary strikes Paul as intelligent.

Crucially, the notion of Subject of Consciousness has an impact on Psych constructions such as this one. As Bouchard (1995) points out, this notion allows us to account for how they behave with respect to long-distance anaphor binding relations such as backward reflexivization via the following condition on long-distance anaphor binding: "A long distance anaphor can be bound by a Subject of Consciousness, if the Anaphor is in the Content of Consciousness of that Subject of Consciousness". Thus, (106) is acceptable because in this sentence, the relation of contact is established in mental space, with 'that book' being presented as a concept that is part of the Content of Consciousness of Mary qua Subject of Consciousness (because, as the author points out, "Mary is crucially aware that the book is about herself"). In contrast, (107) is unacceptable because in this sentence, the relation of contact is established in physical space: 'that book' is presented as a physical object, not a concept in Mary's Content of Consciousness. For this reason, in (106) Mary is an acceptable antecedent of herself, but not in (107) (p. 299-300).

- (106) That book about herself struck Mary as embarrassing.
- (107) *That book about herself struck Mary on the head.

In addition, in his analysis of the existential construction, Bouchard (1997) establishes a direct link between the notion of deixis and the notion 'Subject of Consciousness' 15. The existential interpretation obtained for the construction illustrated in (108), he argues, is the compositional result of the elements present. In this construction, an NP in predicate position (a man) is predicated of the subject, i.e. the locative pronoun THERE⁴⁶. In this use, he argues. the predication is established in the mental domain, and the locative is construed as referring to a point in this mental space, i.e. to a possible world Wn. Crucially, this locative belongs to a two-member system in English, in which HERE represents the deictic center and THERE represents the anti-deictic center. Bouchard argues that since the anti-deictic element THERE expresses any point other than the deictic center, "it refers to a point in the speaker's mental space, in his Content of Consciousness, but other than the speaker, to any point other than the Subject of Consciousness himself' (p. 37, my translation). In other words, the deictic center is construed in mental space as the Subject of Consciousness, and the anti-deictic center is construed as this SC's Content of Consciousness. The predication relation has the effect of attributing the properties of a man to the Subject of Consciousness' Content of Consciousness (in this case, the possible world Wn), and the sentence therefore expresses membership of 'a man' in the possible world Wn, yielding the meaning we observe in existential sentences (p. 36-39).

(108) There is a man outside.

Although Bouchard (1997) clearly shows a conceptual link between 'Subject of Consciousness' and the deictic center, I depart from his analysis on one important point: as

⁴⁵ Ruwet (1990, p. 72) also suggests a possible link between the two phenomena.

⁴⁶ Bouchard's (1997) analysis also deals with the French existential construction (e.g. *Il y a un homme dehors*), which differs in that the non-deictic locative Y is used. I am setting aside this analysis in order to simplify the presentation of the relevant notions here.

pointed out above, I reject the 'me-here-now' formulation of the deictic center. The Subject of Consciousness is not a contextually dependent construal (in the mental domain) of the deictic center. Rather, the notion 'Subject of Consciousness' is an *intrinsic component* of the deictic center. That is, rather than a multi-facetted constant defined in terms of space, time and person, the deictic center is an abstract constant centering on the way humans experience entities and events in the world. Since this element follows directly from the way consciousness interacts with the expression of propositions, it is grounded in properties of general cognition and thus constitutes an externally motivated semantic primitive.

The abstract character of the 'Subject of Consciousness' component on which the deictic center is based allows us to account for the fact the deictic component in VENIR and COME can refer not only to the speaker, but also to the hearer or to a third person. Given the central role of the speaker in the utterance act, it is the speaker who is most often selected to fill the role of the utterance's Subject of Consciousness, as shown in (109) and (110), where the most natural interpretation is that the speaker is in Montreal at the utterance time.

- (109) John is coming to Montreal.
- (110) Jean vient à Montréal.

Because the speaker is the most important member of the utterance situation, and because his own location is the spatial point most accessible to him, the concept 'here' (i.e. the speaker's location) is the *prototypical* spatial interpretation ascribed to the deictic center. The same holds for the values 'me' and 'now' traditionally attributed to the deictic center in other domains. Hence, traditional analyses of deictic verbs like COME and VENIR have mistaken the deictic center's prototypical interpretation for its *intrinsic content*.

Since the hearer is also a participant in the utterance situation, he too can be selected as the SC. This happens most often when the speaker himself is ruled out as a candidate (based on surrounding linguistic context or based on background knowledge of the situation). Thus, in the following, since the subject of COME/VENIR refers to the speaker, we infer that the destination is the location of someone other than the speaker. Given that the hearer is the other member of the utterance situation and thus a potential SC for the sentence, the destination location referred to is not the speaker's but the hearer's.

- (111) I will come on Monday.
- (112) Je viendrai lundi.

Moreover, when context is sufficiently rich, even a third person can be selected as the SC. As Ruwet (1990) and Bouchard (1995) show, a verb describing a psychological event brings with it its own SC. This is true of purely mental verbs, but also verbs of perception and communication verbs. Thus all three of these classes of verbs set up SCs that can be used to determine the reference of the deictic material COME and VENIR. In the following sentences, movement is not toward the speaker or hearer, but toward John/Jean, the referent of the grammatical subject of the psychological/perception/speech verb.

- (113) John thought someone was coming toward him. (MENTAL)
- (114) Jean pensait que quelqu'un venait vers lui. (MENTAL)
- (115) John saw someone coming toward him. (PERCEPTION)
- (116) Jean voyait quelqu'un qui venait vers lui. (PERCEPTION)
- (117) John said that Mary had come to his house. (SPEECH)
- (118) Jean disait que Marie était venue à sa maison. (SPEECH)

In the context of a narrative, a relevant Subject of Consciousness can be provided by a salient participant of the narrated situation⁴⁷. In (119) and (120), John/Jean, by virtue of his role as a prominent participant in the narrated situation, acts as the SC (whose thoughts/perceptions can be accessed by the "omniscient" narrator) that anchors the reference of the deictic material contained in COME/VENIR. Likewise, if the speaker is watching a third person

⁴⁷ See Fillmore (e.g. 1975) on this type of use. Antonopoulou and Nikiforidou (2002) mention that the term "subject of consciousness" has been used in several existing studies on deixis to refer specifically to cases in which the speaker adopts the perspective of a third-person protagonist of a narrative. Crucially however, unlike the present study, to my knowledge no existing analysis considers 'Subject of Conscious' (as defined by Ruwet and Bouchard) to be an invariable component of a speaker-independent semantic representation accounting not only for a motion-toward-third-person-goal use, but for the full range of a deictic verb's uses.

from across the street and wishes to describe the event from the perspective of this participant (e.g. in terms of the event's potential effects on the participant), he can utter sentences (121) and (122).

- (119) John stopped suddenly and looked around. A man was coming (toward him).
- (120) Jean s'arrêta et regarda autour de lui. Un homme venait (vers lui).
- (121) Someone is coming toward John. (He had better be careful.)
- (122) Quelqu'un vient vers Jean. (Il devrait faire attention.)

Hence, the notion 'Subject of Consciousness' makes it possible to go beyond traditional characterizations of the deictic center's referential flexibility in terms of rules that include the notions 'speaker', 'hearer' or 'participant' (see Fillmore's, 1966, "suppositional rules"), and it eliminates the need for a multi-facetted constant (e.g. 'me-here-now') or a special pragmatic device like deictic projection/transposition.

Before moving on, I would like to point out that like the present dissertation, several existing studies propose semantic descriptions of COME- and GO-verbs that are general and speakerindependent. Crucially, however, these analyses bear disadvantages with respect to the present analysis. For example, Goddard (1997) defines COME as motion toward a place such that 'someone in this place could think: X is in the same place as me'. Unlike the notion of Subject of Consciousness, Goddard's formulation does not allow us to predict with precision which specific locations (e.g. hearer's location, location of a third person in a clause following a mental verb, location of prominent character in a narrative, etc.) are acceptable as the destination of a motion event described by a deictic verb like COME. Similarly, in his study of the motion verbs COME, GO, VENIR and ALLER, Winston (1988) characterizes COME and VENIR as describing motion toward the "viewpoint". The author argues that while the default choice is for the speaker to adopt his own viewpoint, he can also adopt the viewpoint of another person, warranting the use of COME/VENIR toward a non-speaker goal. However, the notion "viewpoint" is vaguely defined, and as the author himself points out, he is unable to account for how this concept is grounded in human cognition (p. 34). Thus, while these analyses take the important step of unifying different 'motion' uses under a

single, speaker-independent meaning, the concepts on which are they built lack the precision and independent motivation of the notion 'Subject of Consciousness'.

3.2.3 The concept 'accessibility'

In this subsection I examine the second concept contained in the meaning of the deictic center, that of 'accessibility'. Like the notion 'Subject of Consciousness', 'accessibility' is not intrinsically spatial but rather abstract and thus domain-independent. This concept follows from notions of Subject of Consciousness and Content of Consciousness: when a person (qua Subject of Consciousness) accesses things in his world (both concrete and abstract entities and events), the person's consciousness establishes contact with these entities and events. I define accessibility as follows⁴⁸:

(123) 'Accessibility': An element X is accessible to a given Subject of Consciousness (SC) if there is a potential for X to become a part of the SC's Content of Consciousness (i.e. for the SC to experience X).

This potential contact can be established via the senses, or it can take place in a purely mental domain. On the one hand, when a Subject of Consciousness perceives or interacts with a concrete entity (e.g. a rock, a tree, a person) or an event (e.g. a storm, a meeting, a conversation) in the external world, he is conscious of this entity, and the latter therefore becomes part of his Content of Consciousness. On the other hand, an element such as an idea or a memory can become part of the SC's CC directly, without the intervention of the senses, and thus without involving the domain of space. Crucially, whether we access an element via our perceptual system or do so directly in mental space, this access ultimately involves

⁴⁸ Note that this concept should not be confused with the key concept of Accessibility Theory (Ariel, 1990). In the latter, the term refers to the degree of ease with which the referent of a given NP can be activated in the addressee's memory. According to this theory, the speaker uses different means (such as the definite or indefinite pronoun) to mark the degree of accessibility of a given element.

mental contact with the entities or events in question⁴⁹. Thus, 'accessibility' is based on the idea that a human's conscious interaction with his environment always has a mental dimension.

Several authors have shown that accessibility plays a role in lexical meaning. Vandeloise (1991) demonstrates that this concept is at the heart of the semantics of certain French spatial prepositions. For example, he shows that prepositions PRÈS DE and LOIN DE describe a relation of accessibility or inaccessibility (respectively) between the prepositions' two arguments (in Vandeloise's terms, the target and landmark, i.e. the figure and ground). He argues that this accessibility can take on different forms, depending on the extra-linguistic factors involved in the situation being described. In some cases, it is physical contact that is involved as in (124) and (125). Here, contrary to the traditional assumption that these prepositions encode an objective property like distance, what counts is knowledge about the typical *speed* of the animals involved, this speed determining the accessibility of the lake with respect to the animals (p. 68): given our world knowledge about turtles and antilopes, the distance referred to in (124) is likely to be much smaller than that referred to in (125).

- (124) La tortue est loin du lac.
- (125) L'antilope est loin du lac.

But physical access is not the only possible construal of the general notion of accessibility encoded in the semantics of these prepositions: this relation can be established visually or even aurally, as Vandeloise explains with the following examples.

⁴⁹ Cf Langacker (1987), who proposes "a notion of 'interaction' or 'contact' that is abstract enough to embrace spatial coincidence, the recitation of a particular letter of the alphabet, or contact in the perceptual sense" (p. 179).

While physical access is the principle factor in determining the norm [of distance], access to perception also plays a role. A mountain may be *near* if we are admiring its beauty from a hotel window, yet *far* if we intend to hike there. Here **visual access** is opposed to **physical access**. The wolves may seem *near* when we hear them howling in the woods, but luckily *far* enough away not to threaten our lives. In this example, **auditory access** and **physical access** are in opposition. Finally, a sailboat may be *far* to the naked eye, but *near* through binoculars. **Two types of visual access** contrast here. All these different types of access to the target change the value of the normal distance. (Vandeloise, 1991, p. 70, my emphasis)

As for the prepositions DEVANT and DERRIÈRE, they are claimed to specifically involve perceptual accessibility. As Vandeloise shows, DEVANT expresses that the figure (at least partially) blocks the observer's perceptual access to the ground, while DERRIÈRE expresses that the ground (at least partially) blocks the observer's perceptual access to the figure 50. Once again, accessibility can take on different forms, depending on extra-linguistic factors involved in the situation. In (126), the determining factor warranting the use of DEVANT is the fact that the tent (partially) blocks the tree from the view (i.e. visual access) of the speaker. Conversely, in (127), DERRIÈRE is used to express that it is the tent which is blocked from the view of the speaker. Although visual perception is the dominant channel, with sufficient context, other channels of perception can determine accessibility. Thus, when the sense of touch is involved, the notion of movement can come into play: if an object is blocking a person from reaching out to another object, it thereby prevents access to the person's sense of touch, warranting the utterance in (128). Furthermore, in certain contexts, access can even involve olfactory perception: even if the speaker can fully see two adjacent pots of flowers, (129) is an acceptable utterance, for although there is full visual access, accessibility to the sense of smell is being blocked (p. 123-131).

⁵⁰ Vandeloise considers that in addition to the meaning of DEVANT/DERRIÈRE discussed here, these prepositions have a second lexicalized meaning, which deals not with perceptual access but rather with the intrinsic front and back of the object serving as ground and illustrated in sentences like the following: La voiture rouge est devant/derrière la voiture bleue, where the location of one car is determined with respect to the intrinsic front/back of the other rather than by presence/absence of perceptual access.

- (126) La tente est devant l'arbre.
- (127) La tente est derrière l'arbre.
- (128) La rivière est devant l'arbre.
- (129) Je ne sens pas les violettes parce que les marguerites sont devant.

Hence, although Vandeloise does not explicitly mention the link between his analyses of PRÈS DE/LOIN DE and of DEVANT/DERRIÈRE, both pairs crucially involve the concept of accessibility. The main difference between these two pairs is that DEVANT and DERRIÈRE have a more restricted meaning than PRÈS DE and LOIN DE: they are only about perception (not other kinds of access, such as access to physical contact). Although Vandeloise restricts his discussion of PRÈS/LOIN DE and DEVANT/DERRIÈRE to spatial uses of these prepositions (noting a few abstract uses in passing), I will show in my analysis of COME/VENIR and GO/ALLER that accessibility has a much wider range of (concrete and abstract) manifestations.

Other authors have noted (directly or indirectly) the role of access in certain semantic uses of deictic motion verbs⁵¹. These analyses discuss accessibility via the concept of 'region of interactive focus' proposed by Lindner (1981, 1982, 1983)⁵². According to Lindner, the region of interactive focus is "the realm of shared experience, existence, action, function, conscious interaction and awareness" (Lindner, 1983, p. 171, as cited by Di Meola, 1994, p. 96). This construct is characterized as internally complex, involving a diverse array of states:

[It] is a functional assembly which takes human interaction as essential and is organized around the way people canonically interact with things in the world around them – physically, socially, perceptually, cognitively, etc. Things (or people) located in this region can be in any of a cluster of states represented by this region: in use, prepared, active, mobile, agitated, cognitively or perceptually salient, existing, public, viable, known, and so on. (Lindner, 1982, p. 317-318, as cited by Viberg, 2003, p. 91)

⁵¹ In addition to the studies on deictic verbs discussed here, other existing research linking deixis with the notion of accessibility includes Burenhult (2003) and Jarbou (2010) on demonstratives.

⁵² As I was unable to obtain Lindner's texts, the passages cited here were obtained from Di Meola (1994), Radden (1996) and Viberg (2003).

This concept is linked to the notion of accessibility, for an entity in the region of interactive focus can be seen as accessible: "When a trajector is accessible to the viewer [...], it is available to the public, upholds social commitments, is under consideration, desired, revealed, actual, viable, existing, known and visible [...]" (Lindner, 1983, p. 121, as cited by Di Meola, 1994, p. 97).

Cognitive semanticists studying the polysemy of deictic motion verbs (Di Meola, 1994, for German KOMMEN and GEHEN; Radden, 1996, for English COME and GO; Viberg, 2003, for Swedish KOMMA and GÅ) have thus argued that "non-deictic" uses of these verbs are related to the prototypical deictic motion uses via an extension from the actual deictic center to the region of interactive focus, as in the following diagram.

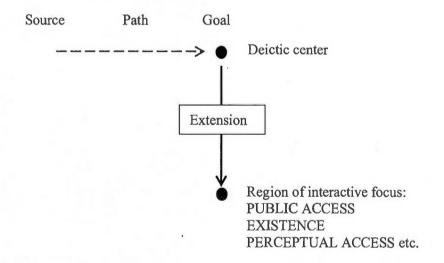


Figure 3.3 Sense extensions of Swedish KOMMA 'come' (from Viberg, 2003, p. 91)

Hence, as Radden (1996) points out, the opposition between COME- and GO-verbs in their non-motion uses can be described in terms of entering and exiting the region of interactive focus:

The use of deictic motion verbs in describing non-deictic situations may be explained by Lindner's (1983) notion of a viewpoint-defined region of interactive focus. A trajector which enters a region of interactive focus is **accessible**, available to the public, desired, existing, known and visible, while a trajector which leaves this region becomes imperceptible, inoperable, and defunct (Lindner 1983: ch. II, 3.39, ch. III, 2.3.4). The viewpoint-defined region of interactive focus also motivates the use of to come and to go [...] (Radden, 1996, p.434, my emphasis).

For example, Radden argues that the uses seen in examples like (130) and (131), involving visual accessibility, are motivated by this extension from the spatial deictic center as follows: "In sentence (16a) [my (130)], the stars become visually accessible and are seen as 'coming' into the viewer's region of interactive focus. In sentence (16b) [my (131)], the light becomes inaccessible and is seen as leaving the viewer's region of interactive focus" (p. 434, my emphasis). Similarly, Viberg (2003) accounts for the mental use of COME in examples like (132) as an extension from the concrete deictic center to "cognitive access": "[...] Origo has been extended further from the realm of physical experience into something like our inner experience or consciousness." Crucially, he notes (with Lindner 1981, 1982) that "this kind of cognitive access can be conflated with cases of perceptual access into a single region of interactive focus [...]" (p. 90).

- (130) The stars came out.
- (131) The lights went out.
- (132) Those thoughts were coming again.

These analyses are valuable in that they begin to shed light on the role of accessibility in lexical meaning, in particular, providing clues about the relations between the different (concrete and abstract) senses of deictic motion verbs. However, they present several significant problems. First, the notion of 'region of interactive focus' as formulated above is too vague and internally heterogeneous to make useful predictions about the possible and impossible uses of words like deictic motion verbs. Unlike the simple, invariant, abstract concept of accessibility that I am adopting, the region of interactive focus (a "functional assembly", in Lindner's words) is internally complex. This complexity is not only unparsimonious; it also leads to inaccurate predictions if applied to deictic verbs. For example, if, as claimed by Lindner and Radden above, there is a link between being desired and being accessible, it should be possible to say As I developed a love for boats, the/a yacht

came to me with the interpretation 'The/a yacht became desirable to me, i.e. I started to want to have a yacht'. This is clearly not the case, however, and a truly explanatory analysis must be able to predict the impossibility of such uses.

Second, the above analyses rely on the traditional assumption that deictic elements necessarily center on the speaker-as-observer. This assumption is adopted in Vandeloise's analysis of DEVANT and DERRIÈRE, which assumes that these prepositions express (in)accessibility with respect to the speaker as observer. Clearly, however, sentences like (133) and (134) below show that accessibility can be determined with respect to a person other than the speaker. In (133), the situation involves accessibility to the hearer. That is, in the second sentence, Marie does not use the preposition DERRIÈRE to express that she is visually inaccessible to herself, but rather to indicate that she is inaccessible to the hearer Jean. In (134), it is possible that both the speaker and hearer of the utterance can see Marie but that Jean cannot; hence, the sentence expresses Mary's inaccessibility with respect to Jean, a third person.

- (133) -Jean: Où te caches-tu? -Marie: Ici, derrière l'arbre!
- (134) Jean ne voit pas Marie parce qu'elle est derrière l'arbre.

Similarly, Di Meola's (1994) analysis of German KOMMEN and GEHEN centers on the prototypical use in which the deictic center is identified with the speaker. In order to explain the fact that deictic verbs used in idiomatic expressions can involve a more general observer than merely the speaker, Di Meola has recourse to the notion of "origo shift" (see the mechanism of deictic projection/transposition discussed in section 3.2.1 above)⁵³:

⁵³ "So ist von einem kanonischen Betrachter auszugehen, der sich einen Ort "aussucht", an dem ihm die äuβere Welt zugänglich ist. Die Gegenstände sind wahrnehmbar (z.B. sichtbar oder hörbar); sie sind dem Betrachter bekannt, er kann mit ihnen interagieren.

Der kanonische Betrachter kann als eine extreme Form der Origoverschiebung angesehen werden. Das Verb kommen bezeichnet in diesen Fällen eine abstrakte Bewegung, die sich dem kanonischen Betrachter nähert (Eintritt in die Region des interaktiven Fokus), das Verb gehen hingegen eine Bewegung, die sich entfernt (Austritt aus dem Fokus)." (Di Meola, 1996, p. 96-97)

Thus we can take as a starting point a canonical observer that "seeks out" a place from which the external world is accessible to him. Objects are perceptible (e.g. visible or audible); they are known to the observer, he can interact with them.

The canonical observer can be viewed as an extreme form of **origo shift**. The verb *kommen* describes in these cases an **abstract movement** towards the canonical observer (entry into the region of interactive focus), while the verb *gehen* describes a movement away from the canonical observer (leaving focus). (Di Meola, 1996, p. 96-97, my translation and emphasis)

Such an analysis requires not only that we postulate metaphoric extensions from movement to abstract domains, but also a vaguely defined notion of "canonical observer" that lacks independent motivation; according to Di Meola (1994, p. 112), this observer "is identified with the region of perceptibility and cognitive accessibility" and is derived from the deictic center's prototypical, egocentric meaning. Crucially, as I showed above (in section 3.2.2), the proper notion to capture the referential flexibility of the deictic center is that of 'Subject of Consciousness'. As I will show in Chapters IV and V, context and background knowledge allow us to determine which Subject of Consciousness (or set of subjects of consciousness) is the most appropriate for a given utterance containing one of these deictic verbs. The fact that in prototypical motion uses accessibility is determined with respect to the speaker simply follows from the fact that the speaker is the most salient participant in the utterance situation. In other words, the speaker is the thing that is most accessible to himself. This is why scholars have traditionally treated the deictic center via the characterization 'me-here-now'.

A final problem raised by the analyses under discussion is that they adopt the Cognitive Semantic assumption that elements such as deictic verbs are lexically polysemous⁵⁴, proposing that spatial uses are central and that non-spatial uses are motivated by metaphorical extensions from space. As a result, the notion of accessibility is not taken to be an intrinsic property of an invariant, core meaning of deictic motion verbs, but rather merely a property of certain specific, non-central lexicalized senses derivationally related to the prototypical spatial use via the internally complex notion of "region of interactive focus".

⁵⁴ See my discussion of Lakoff's (1987) approach to polysemy in the lexicon above (section 1.1.1).

I depart radically from these authors on this point, showing instead that for deictic motion verbs like COME, GO, VENIR and ALLER, what is semantically constant from one use to the next is not the idea of movement, but rather the notion of accessibility to a Subject of Consciousness. As for the idea of spatial proximity so often attributed to the semantics of these verbs, it is in fact merely one of the many contextually derived construals of accessibility: an object can be accessible to a Subject of Consciousness by being near to him in space, but it can also achieve this general relation by being accessible to perception, mentally accessible, or simply by existing. Hence, while certain Cognitive Semantic analyses of deictic verbs have rightly pointed out a link between accessibility and certain "extended" uses of these verbs, they fail to recognize the central role played by this notion: when deictic verbs express notions like 'perceptible', 'known', 'publicly available', or 'existence', it is because each of these concepts is one possible manifestation of the more general notion 'accessibility to a Subject of Consciousness'.

Crucially, this approach to the lexical meaning of deictic verbs has a significant advantage over space-based, Cognitive Semantic analyses like those of Di Meola, Radden and Viberg: rather than positing complex networks of multiple lexical meanings involving metaphorical extensions from a central spatial meaning, I will show (in Chapters IV and V) that these verbs are monosemous, and that all their numerous uses can be explained by defining the deictic center as 'a point that is accessible to a Subject of Consciousness'. In other words, taking accessibility as a core component of these verbs' semantics, we can dispense with space and metaphor altogether in accounting for the broad range of contextual uses these verbs allow.

3.3 Type of end relation

As shown so far, COME and GO share several semantic properties with their French counterparts VENIR and ALLER. First, both sets of verbs express abstract orientation predicated of X (the subject's referent). Second, for both sets of verbs, this orientation is towards a relation with the deictic center (in the case of COME/VENIR) or the anti-deictic center (in the case of GO/ALLER), and the deictic and anti-deictic centers are defined the same way for both the English verbs and their French counterparts: the deictic center is 'a

point that is accessible to a Subject of Consciousness', and the anti-deictic center is 'a point other than the deictic center'.

However, the English and French verbs do not have identical semantic representations, for they differ through a single component: the type of relation toward which X is oriented. In the present section I show that VENIR and ALLER express orientation toward a maximally general relation R, while COME and GO express orientation toward the more specific relation of localization.

3.3.1 The relation R

VENIR and ALLER encode a maximally general relation between X and the deictic/anti-deictic center. This underspecified relation, which I will call R, is described by Bouchard (1995) as a general "combinatorial" or "associative function". In other words, VENIR and ALLER simply indicate that X is oriented toward "relating" with 0 or ω (p. 121)⁵⁵. This can be represented as in (135) and (136).

- (135) End-relation expressed by VENIR: R (X, o)
- (136) End-relation expressed by ALLER: $R(X, \omega)$

Because the relation established is between two points (X and o/ω), the R in these verbs' meanings cannot be interpreted as *predication*, i.e. application of one the two elements as a property of the other. This is because points refer to entities, and one entity cannot be predicated of another entity. This becomes apparent if we compare VENIR with DEVENIR, the latter of which presumably expresses orientation toward a *property* rather than a relation. Hence, while the complement of VENIR or ALLER must be a relational element like a PP (as in (137)), DEVENIR takes as a complement an element expressing a property (such as an

⁵⁵ Bouchard (1995) proposes the label COPULA for this relation. This label is problematic because *copula* traditionally refers to grammatical class of elements from the lexicon (e.g. BE, ÊTRE) that serve to link a subject to a predicative expression (an NP or an ADJ). In the present case, instead of a grammatical operator, we have a semantic primitive that associates one point with another. Thus, for this primitive I reject the label COPULA and use R instead.

NP or an ADJ, as in (138)). For the same reason, DEVENIR is incompatible with a complement that is a prepositional phrase.

- (137) Jean est venu/allé à Montréal.
- (138) Jean est devenu (un) professeur/ Jean est devenu célèbre.
- (139) *Jean est venu/allé (un) professeur/Jean est venu/allé célèbre.
- (140) *Jean est devenu à Montréal.

3.3.2 Localization

While VENIR and ALLER express orientation toward general relatedness (R), COME and GO express orientation toward the more specific relation of *localization* (L), which I will represent formally as follows.

- (141) End-relation expressed by COME: L(X, o)
- (142) End-relation expressed by GO: L (X, ω)

This concept is proposed by Vandeloise (1986, 1987, 1991) in his analysis of the French preposition À in its spatial use⁵⁶. The author characterizes localization as a relation between two elements – the target (i.e. figure) and the landmark (i.e. ground) – whose main function is to allow the hearer to locate the target by using the landmark as a reference point. A crucial effect of this function is that localization "maximizes the contrast between the target (the object sought after) and the landmark that is the point of reference" (Vandeloise, 1991, p. 184, my emphasis). In other words, although all spatial prepositions set up an asymmetry between the figure (expressed by the subject of the preposition) and the ground (expressed by the object of the preposition), the localizing preposition À has the effect of insisting on this asymmetry, given that the ground is treated as a reference point allowing the hearer to

⁵⁶ Note that Desclés *et al.* (1998) also use a relation called localization as a semantic primitive in their analysis of motion verbs. Crucially, however, their notion does not have the properties laid out here and therefore should not be confused with the primitive I am attributing to the meaning of COME and GO.

determine the whereabouts of the figure. Thus, as he points out, "[f]or a landmark to localize a target ideally, both landmark and target must be ideal examples of their type" (Vandeloise, 1991, p. 168). Moreover, as Ruwet (1969) points out, "the NP following à must itself have an intrinsic localizing value in some sense; this is not necessarily the case when we consider complements of the form dans NP, sur NP, etc." (p. 320, as cited by Vandeloise, 1991, p. 168).

For example, while a significant asymmetry in size between figure and ground is not required by other spatial prepositions (as shown in (143)), the localization expressed by À does bring about this requirement (as shown in (144)) (p. 160). Likewise, when À is used, there is a marked tendency for asymmetry in mobility: the figure is mobile, and the ground is immobile (p.161-162), resulting in the marginality of examples like (145) and (146).

- (143) La cuiller est près de la fourchette.
- (144) *La cuiller est à la fourchette.
- (145) ? Le chien est à l'arbre.
- (146) ?? Le banc est à l'arbre.

Vandeloise points out that the acceptability of (145) and (146) improves if the interpretation is that the dog/bench is tied/chained to the tree. In other words, localization has the effect of *anchoring* the figure at the ground. When atypical objects are used as a ground, acceptability improves if this anchoring has a concrete reality (as in the examples here, where the figure is literally attached to the ground)⁵⁷.

A third effect noted by Vandeloise (1991) is that localization maximizes the "unknown vs. known" contrast between figure and ground. As he points out, an element's ability to function as ground for the localizer \grave{A} depends on "how precisely it is localized in the shared knowledge of the speakers", resulting in a constraint on the specificity of the landmark: " \grave{a} is

⁵⁷ As I show in Chapters IV and V, this anchoring property of localization plays a crucial role in accounting for the differences in semantic uses between COME/GO and VENIR/ALLER.

acceptable in proportion to the specificity of the landmark's position". Thus, (147) and (148) are acceptable because use of a proper noun typically presupposes that the location of the referent is known to both speaker and hearer. In contrast, since a definite article does not unambiguously pick out an individual, the acceptability of (149) depends on whether or not context or shared background knowledge make the NP's referent highly identifiable. And since an indefinite article generally depicts the referent as non-specific (and thus not easily identifiable), (150) is unacceptable (p. 160-168).

- (147) L'empereur est à Liège.
- (148) L'empereur est au rocher de la Vierge Folle.
- (149) (*)L'empereur est au rocher.
- (150) *L'empereur est à un rocher.

As Vandeloise points out, the concept of localization is grounded in general cognition (1991, p. 184-185) and is "fundamental in our interaction with the world" (157), for in daily existence, humans are constantly faced with the need to locate things with respect to a known/familiar reference point. However, we do not only locate things in space (e.g. looking for our keys in the morning), but also in abstract domains such as time (e.g. anticipating a dinner that is planned for later in the day). This domain-independent character is also reflected inside language, where localizing elements such as À can be used across a wide variety of semantic domains, as shown in (151) through (154) (see Jackdendoff, 2002, p. 356-360, for a discussion of TO's use across domains)⁵⁸. In all of these examples, À serves to situate a figure with respect to a stable, familiar ground. Thus, although I adopt Vandeloise's basic characterization of localization, I depart from his restriction of this concept to the

⁵⁸ Although I am assuming that the same general concept of localization is present across languages, operating as the core of the semantics of prepositions like French À and English AT, such lexical items may contain additional components that account for the cross-linguistic variation in their specific uses (e.g. French À's wider set of uses compared to those of English AT). Thus, although elements like À and AT can be used to bring to light certain properties of localization itself, the latter should not be taken to be strictly equivalent to the semantics of any given lexical unit.

domain of space. Instead, I define localization more generally as the anchoring of an element X with respect to an identifiable point Y. Hence, like the concepts 'orientation' and 'deictic/anti-deictic center', 'localization' is abstract and domain-independent (despite the spatial connotations that terms like *orientation* and *localization* may carry in everyday use).

- (151) TIME: Le concert est à 14h.
- (152) POSSESSION: Cette voiture est à Jacques.
- (153) TEMPERATURE: Le four est à 400 degrés.
- (154) DEGREE: À quel point désire-t-il participer au colloque?

The English and French verbs under examination in the present study thus differ with respect to the relation they contain: VENIR and ALLER contain the unspecified relation R ('X relates to Y'), while COME and GO contain the localization relation L ('X is localized at Y'). As I show in Chapters IV and V, this difference in intrinsic semantic content provides the key to understanding the numerous sense differences observed between French VENIR/ALLER and English COME/GO.

This cross-linguistic asymmetry in verb meaning is paralleled by an asymmetry in prepositional meaning: the general French prepositions À and DE cover a greater range of uses than their English counterparts AT/TO and FROM/OF, respectively, and it is thus reasonable to assume that the former are more general in meaning than the latter. In other words, like the English verbs COME/GO, the English prepositions TO/FROM are richer in lexical meaning than their French counterparts.

Further evidence that English motion verbs tend to have richer, more specific semantic content than their French counterparts comes from Bouchard's (1995, p. 189-207) analysis of Manner-of-Movement Verbs (MMVs). The author notes that French MMVs combined with static prepositions yield only static readings (e.g. *La bouteille flotte sous le pont*), while some English MMVs, when combined with static prepositions, yield dynamic (i.e. change of location) readings (e.g. *The bottle is floating under the bridge*). He argues that this follows from the way the two languages encode orientation: French uses abstract orientation as a component only when the relation being expressed is too general to be expressed through 3D

(i.e. perceptually-based) properties. English, on the other hand, makes generalized use of abstract orientation as a component of motion verbs, preferring this over a perceptually-based orientation component.

3.4 Identification of the verbs' semantic representations

Having defined the components that enter into the makeup of the verbs COME, VENIR, GO and ALLER, I can now identify the full semantic content of each of these verbs. As shown in the semantic representations in Figures 3.4 through 3.7, each verb has only a single, abstract meaning expressing X's orientation toward a relation with a constant. For VENIR and COME, this constant is the deictic center o, and for GO and ALLER, the constant is the anti-deictic center ω . Cross-linguistically, these verbs differ only with respect to a single component: the type of relation established with the deictic/anti-deictic center. In the case of French VENIR and ALLER, the end relation is the maximally general R, while in the case of English COME and GO, the end relation is localization (L). Hence, ALLER and VENIR express that 'X is oriented toward being related to ω , while COME and GO express that 'X is oriented toward being related to ω .

$$X \longrightarrow R(X, o)$$

Figure 3.4 Semantic representation of VENIR

$$X \longrightarrow L(X, o)$$

Figure 3.5 Semantic representation of COME

$$X \longrightarrow R(X, \omega)$$

Figure 3.6 Semantic representation of ALLER

$$X \longrightarrow L(X, \omega)$$

Figure 3.7 Semantic representation of GO

As I show in the next two chapters, this single difference between French and English verbs has important consequences for the uses they allow in context. In particular, semantic uses that rely on the notion of localization at an endpoint are obtained more easily for COME and GO than for VENIR and ALLER. In addition, although none of these verbs intrinsically expresses a source relation for the orientation, the latter can be inferred based on the nature of the end-relation. Thus, COME and GO can also be used in situations requiring the notion of localization at a source point, while such uses are difficult to obtain for VENIR and ALLER when context or background knowledge do not provide this information.

CHAPTER IV

THE SENSES OF COME AND VENIR

The present chapter demonstrates how the specific, contextualized interpretations of COME and VENIR are derived from their respective monosemous meanings based on background and contextual knowledge. In particular, we will see that all of the similarities and differences observed between these verbs' senses follow from a single difference in their invariant semantic representations (type of end-relation) as well as from differences in the English and French grammatical and lexical systems.

4.1 Motion

In this section, I discuss the most salient, prototypical set of senses of COME and VENIR: those traditionally treated as describing motion toward the speaker or hearer. As shown in Chapter II, many semanticists consider 'motion' as the base sense of verbs like COME and VENIR. However, as Bouchard (1995) shows, the notion of movement is in fact completely absent from the intrinsic meaning of these words. The situation of movement that these verbs can be used to express is not a distinct meaning. Rather, it can be calculated directly from the abstract core meaning of each of these verbs identified in the preceding chapter in combination with the meaning of the other grammatical and lexical elements as well as elements of meaning determined inferentially from our background and world knowledge. In short, 'motion' is not a meaning of these verbs, but of the sentences uttered in particular contexts.

4.1.1 Account of general properties

We saw in the preceding chapter that the invariant semantic representations of COME and VENIR are the following:

(155) COME:
$$X$$

$$\longrightarrow L(X, 0)$$
(156) VENIR: X

$$\longrightarrow R(X, 0)$$

A 'motion' use emerges when the subject refers to a concrete, mobile entity and when either lexical material in the sentence or background knowledge brings us to interpret the deictic center o concretely as a physical location. Sentences (157) and (158) are typical examples of this 'motion' use. Combining the elements of these sentences with the semantic representations of COME and VENIR, we obtain the compositional meanings illustrated in (159) and (160), respectively.

- (157) John is coming to Montreal.
- (158) Jean vient à Montréal.

Let us first consider the English example. (I return to the French sentence below.) Sentence (157) expresses that John is oriented toward being in a relation of localization with o. The PP complement is interpreted as specifying the reference of the end-relation in the verb's

'Montreal'

meaning⁵⁹. This follows from the assumption that a PP, a relational element, can only be coreferential with another relational element. Hence, the PP cannot be interpreted as identifying o, since o is a point. Since the PP specifies the reference of L, the argument of the preposition (the point *Montreal*) is interpreted as linking to o. (Thus, my analysis differs in this respect from that of Bouchard (1995), who claims that the PP specifies the reference of o.) The compositional meaning expressed in representation (159) can be roughly paraphrased as follows: 'John/Jean is oriented toward being in a relation of localization with o, that is, with the point Montreal'⁶⁰.

World knowledge about the entities being referred to enriches this global meaning. The prototypical referent of *John* is a human being, and the most likely referent of *Montreal* is a city. The arguments present in the sentence are thus spatial entities, leading us to infer that the sentence describes a spatial situation. When construed in the spatial domain, the concept of localization yields the idea of being physically located at a point in space (see section 3.3.2), and we thus infer that o refers to a spatial point (an idea that is reinforced by o's being co-referential with *Montreal*).

Because the notion 'orientation' is based on magnitude, and because the meaning 'X is oriented toward a relation Y' decomposes as 'X has an *increasing potential* to be in relation Y' (see section 3.1), the sentence *John is coming to Montreal* can be paraphrased as 'John/Jean has an increasing potential to be at the point Montreal'. The most natural way for a human to have such a tendency is to be engaged in physical movement toward the location in question. At each successive point along the path Jean follows, he has greater potential to bring about the state 'Jean is located at Montreal'. The logical end state of any trend of increasing potential toward a relation Y is the *realization* of that relation. In spatial terms,

⁵⁹ In the present study I use the term *complement* broadly to refer to any element that identifies (i.e. links to) a subpart of a verb's lexical semantic structure. When, instead, a sentential element applies predicatively to (i.e. modifies) a subpart of the verb's meaning, I consider this element an adjunct.

⁶⁰ It is important to point out that the paraphrases used in the present analysis have no theoretical import. Rather, they are used solely for expository purposes, allowing me to show how linguistic and extra-linguistic elements are used to obtain the global interpretation for a given utterance.

once John is physically localized at the point 'Montreal', he cannot get any closer to Montreal.

The deictic center contained in COME and VENIR is defined as 'a point that is accessible to an SC'. Crucially, one spatial point to which any given Subject of Consciousness has access is his own location. Thus, when the deictic center is construed spatially, it can be interpreted as 'the location of the SC'. As mentioned above (section 3.2.2), the speaker is the most salient Subject of Consciousness, given his central role in the utterance situation. Moreover, since it is the speaker who is primarily responsible for assigning the status of SC to entities, he has a privileged, somewhat omniscient status. Consequently, he has access not only to his own location, but also to the location of each entity to which he assigns the status of SC.

Thus, in sentences like (157) above, COME is used to indicate that the subject is oriented toward being at the physical location of the speaker or other SC. Since the prepositional phrase to Montreal specifies the reference of the relation L ('John', 'location of SC'), Montreal identifies the location of the SC. Finally, as Bouchard (1995, p. 127) points out, the most natural way for a mobile entity such as a human to be oriented toward being located at a point in space is for this entity to undergo movement toward that location. We therefore obtain the meaning: 'John is moving toward the location of an SC (such as the speaker), a location specified as being Montreal'. Thus, for sentences like (157), the most natural interpretation is a situation involving a concrete entity (in this case, a human) undergoing movement in space.

Since VENIR does not have the same meaning as COME, it does not make the same contribution to the overall meaning of the sentence in (158) as COME does in (157). That is, VENIR does not contribute localization, since the end-relation expressed in its meaning is the maximally general R. However, in (158) the concept of localization is nonetheless supplied by the preposition À, giving us sufficient information to construe the end-state as one of being physically located at the location of an SC. Thus, once again, we obtain the global meaning 'Jean is moving toward the location of an SC'.

Note, however, that a 'motion' reading can be obtained even in the absence of a destination complement, as in (161) and (162).

- (161) John is coming tonight.
- (162) Jean vient ce soir.

Since the subject refers to a mobile spatial entity capable of self-determined, self-propelled motion, in the absence of a destination complement, the default assumption is that the verb must be interpreted spatially: the deictic center refers to the location of an SC, and the orientation component refers to a motion event. This is because according to our world knowledge, the most obvious way for a mobile concrete entity like a human to be in a relation with a point in space is to be located there. Hence, although VENIR's meaning lacks the specific notion of localization contained in COME, in a sentence like (162) there is sufficient information for the idea of physical localization to be inferred based on our world knowledge. As a result, despite the difference in intrinsic semantic content, not only COME but also VENIR is able to express motion toward the location of a Subject of Consciousness, with or without the presence of a locative expression acting as a destination complement.

In addition, world knowledge indicates that not only animate objects, but also various kinds of inanimate objects (e.g. vehicles, clouds, rocks, etc.) can undergo motion through space. Consequently, a 'motion' reading can be obtained even when the subject of COME and VENIR is a typically mobile inanimate entity, as in the following.

- (163) There is a car/a storm cloud coming (toward us).
- (164) Il y a une voiture/un gros nuage qui vient (vers nous).

4.1.2 Account of deictic properties of motion uses

Traditional analyses of deictic verbs like COME and VENIR assume that in the motion use the end-point of the movement must be the location of the speaker, but this is an error. The deictic center contained in these two verbs' meanings is 'a point that is accessible to an SC', so in a 'motion' reading, the destination is the location of an SC. Given the speaker's special status that follows from the nature of language (see section 3.2.2), it is true that the most prominent SC in any utterance situation is the speaker. Thus, without further context, we interpret the verb as indicating motion toward the speaker, as in examples (157) and (158) above.

On the other hand, because entities other than the speaker can be assigned the status of SC, when contextual or background knowledge is sufficient, a location other than the speaker's location can be selected as the intended destination of the motion event expressed by COME and VENIR. This location can be that of the hearer (examples (165) and (166)), or a third person in the case where COME/VENIR follows a mental verb ((167) and (168)), a perception verb ((169) and (170)) or a communication verb ((171) and (172)), or in the context of a narrative, where the relevant Subject of Consciousness is provided by a salient participant of the narrated situation ((173) and (174)). (See section 3.2.2 for my full account of the way the SC is selected in each of these examples).

- (165) I'll come on Monday.
- (166) Je viendrai lundi.
- (167) John thought someone was coming toward him.
- (168) Jean pensait que quelqu'un venait vers lui.
- (169) John saw someone coming toward him.
- (170) Jean voyait quelqu'un qui venait vers lui.
- (171) John said that Mary had come to his house.
- (172) Jean disait que Marie était venue à sa maison.
- (173) John stopped suddenly and looked around. A man was coming toward him.
- (174) Jean s'arrêta et regarda autour de lui. Un homme venait vers lui.

Another traditional assumption about deictic motion verbs is that the goal of the movement must be the location of the speaker (or other SC) himself. This, too, is an error, for the notion 'a point that is accessible to an SC' can be construed in more than one way. On the one hand, it is true that the speaker's (or other SC's) own location is the most salient spatial point to which he has access, and this accounts for the fact that in prototypical 'motion' uses of COME and VENIR, the subject's referent ends up at the same point in space as the SC. On the other hand, depending on contextual factors, a point in space other than the SC's own

location can be considered accessible to him, and in such situations, COME and VENIR can be used to describe a movement that does not end at the SC's location.

To illustrate this, imagine a situation in which the hearer is inside a house and the speaker is outside the house. Even though the movement does not necessarily result in the speaker and hearer being at the same point in space, sentence (175) is perfectly acceptable. This is because the element *out of* indicates that the movement results in the person leaving a space functioning as a container. Our world knowledge indicates that containers like houses have sufficient properties to make a contained object inaccessible (in terms of visibility, physical contact, etc.) to a person who is not also inside that container. Thus, a movement *out of* a house or similar container typically results in the object becoming accessible. In the situation described in (175), the hearer is to undergo a movement bringing him into a relation of accessibility vis-à-vis the speaker, and thus the sentence is acceptable.

(175) Please come out of the house.

Now imagine a situation in which the hearer is standing either in a canoe that is on land or in a yard that is not surrounded by a fence. Imagine also that the hearer is within seeing-distance of the speaker, and that the latter is not in the canoe/yard. While both locations count as containers (thus warranting the use of *out of* to specify the destination of the motion), (177) would nonetheless be unacceptable in these contexts, while a sentence using a verb like GET, as in (176), is fully acceptable.

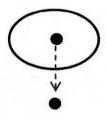
- (176) Please get out of the canoe/yard.
- (177) ?Please come out of the canoe/yard.

Given COME's semantics, (177) indicates a transition from inaccessibility to accessibility, and this enters into contradiction with our contextual/world knowledge: due to the spatial characteristics of canoes and yards, containment within these spaces is unlikely to make the hearer inaccessible (e.g. visually inaccessible, inaccessible to physical contact, communication, etc.) to the speaker. If, however, the hearer is hiding underneath an overturned canoe or inside a yard surrounded by tall hedges, and the speaker is a police officer trying to arrest him, sentence (177) becomes fully acceptable. This is because

contextual factors are now such that the hearer's containment within these spaces renders him inaccessible to the speaker, making it now possible to imagine a movement toward non-containment that would cause him to become accessible⁶¹.

A further illustration of the effects of the 'accessibility' component in a motion context comes from the following example. Imagine that the hearer is standing in a shadow that is surrounded on all sides by a zone of light, and that the speaker and hearer are facing each other. Without further context, we interpret (178) as meaning that the speaker wants the hearer to move *closer to him* (as illustrated in (179), where S stands for the location of the speaker, and the dots represent the starting and end points of the movement). But this is not the only possible interpretation: the request would still be deemed to have been carried out if the hearer were to step sideways out of the light, remaining just as far from the speaker as he was before the movement (as illustrated in (180)). The determining factor in this second case is not location or physical proximity, but rather access to visual perception.

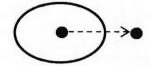
- (178) I can't see you, please come into the light.
- (179) Situation 1



2

⁶¹ Given that French is a verb-framing language that makes abundant use of the verb SORTIR (which encodes the notion of orientation toward non-containment: see Bouchard, 1995, p. 183-184), a French translation of (176) using VENIR is awkward: ??SVP, venez hors du canot/de la cour.

(180) Situation 2



S

Likewise, although the default interpretation of (181) is that the microphone is physically close to the speaker, the sentence would still be acceptable in a situation where movement to the microphone brings the hearer no closer to the speaker (or even slightly further from him), because the microphone is a point of *auditory* accessibility for the speaker⁶².

(181) I can't hear you. Please come to the microphone.

To further illustrate how accessibility to the speaker (or other SC) can be achieved through situations other than an object's spatial co-occurrence with the latter, consider example (182). Since the most salient point that is accessible to an SC is the SC's own location, without further context we interpret (182) as indicating that an SC (such as the speaker) is standing next to the telephone pole at the time of the event. However, the sentence is still fully acceptable if the SC is watching the action from a remote location via a camera mounted on the pole. This interpretation is made explicit in (183). In this case, the subject's referent ('the man') is oriented toward being at a point that is visually accessible to the speaker, and the basic intrinsic requirement imposed by COME's semantics is thus met.

⁶² See Di Meola (1994, p. 44-45) for a discussion of how sight and hearing influence the reference of the deictic center in similar situations for German KOMMEN and GEHEN.

- (182) The man came toward the telephone pole.
- (183) I watched the television monitor in disbelief as the man came toward the telephone pole.

Examples (178) through (183) therefore demonstrate that when COME is used to express movement through space, it need not necessarily express movement to the physical destination of the speaker (or other SC), as long as the destination is a point that is in one way or another highly accessible to the SC. In our experience of the real world, increase of physical proximity *typically* is an optimal way to increase access to something, but it is not the only way, as we have seen here.

Finally, the notion of accessibility allows us to account for the behavior of 'home-base' uses often noted for COME's and VENIR's 'motion' use. As pointed out by Fillmore (e.g. 1975), deictic verbs can be used to describe movement toward a location that is strongly associated with the speaker (such as his home or workplace), even when the speaker is not present at that location at the time of arrival, as in the following.

- (184) John came to my house yesterday, but I was at work.
- (185) Jean est venu à ma maison hier, mais j'étais au travail.

Our world knowledge tells us that locations such as a person's home, office, etc. are places where he spends a great deal of time. Thus, if an entity X moves to the home, etc. of an SC, there is a good chance that X will become *accessible* to this SC. This accounts for the acceptability of sentences like (184) and (185): even though the subject's referent ('John') did not move to the location occupied by the speaker at the time of the event, he did move to a location which, by virtue of the speaker's frequent presence, offers the potential of establishing contact. Moreover, (184) and (185) presuppose that John expected to see the

speaker at the house, i.e. that he expected to establish contact with him⁶³. This is made clear by the unacceptability of (186) and (187), where the context indicates that John, having just seen the speaker at the office, could not have been expecting to see him at the house afterwards.

- (186) *Yesterday, John visited me here at my office. We said goodbye, and then he came to my house.
- (187) *Hier, Jean m'a rendu visite ici à mon bureau. Nous nous sommes salués, puis il est venu chez moi.

Crucially, in this situation the movement was not aimed at establishing a relation of accessibility between John and the speaker, and the result is an effect of oddness. Thus, in order for a location to function as a "home base" referent of COME's and VENIR's deictic center, the location must not only be frequently occupied by the speaker (or other SC); this frequent occupancy must be coupled with the expectation that X's movement will bring it into contact with (i.e. make it *accessible* to) the SC. Even in sentences like (188), whose acceptability at first sight appears to contradict this generalization, accessibility is in fact involved. This sentence can be uttered acceptably even if the speaker is not present at the house at the time of utterance, despite the fact that John's intent was clearly not to establish contact with the speaker. Crucially, in this situation the *result* of John's presence – i.e. the theft – is (perceptually) accessible to the speaker and has an effect on him. Hence, the motion event results in the establishment of a relation of accessibility, and the sentence is fine.

(188) Last night, since John knew I was away, he came to my house and stole my bike from the back yard.

Before moving on to discuss the differences between the motion uses of COME and VENIR, I would like to point out a use that is related to motion and illustrated in (189) and (190)

⁶³ In the present discussion, I am using visibility as the prototypical case of visual accessibility. However, accessibility can be gained by other perceptual systems. Thus, (184) and (185) are perfectly acceptable when used by a blind person. For an alternative analysis of examples similar to (184) and (185), see Winston (1988, p. 49).

below. Just as a mobile entity such as a person can be localized at a point in space, in the domain of *cyberspace* a person can establish a localization relation with a website. COME and VENIR can therefore be used to describe navigation to a website belonging to the speaker or other SC⁶⁴.

- (189) Come to our web site for up-to-date information on the events.
- (190) Venez sur notre site web pour des informations sur les événements.

4.1.3 Account of differences in motion uses

Despite the highly similar behavior that COME and VENIR display in their 'motion' uses, because these verbs do not have identical semantic representations (i.e. COME contains localization as an end state, while VENIR contains the maximally general relation R) they nonetheless exhibit several differences.

A first difference concerns the possibility of expressing imminent arrival, a concept that requires us to focus on the final segment of a motion event. Because COME's meaning expresses orientation toward a relation of localization, it can be used in the present progressive to focus on X's act of establishing a relation of physical localization, i.e. of arriving at a point. This is illustrated in (191), which can be uttered, for example, by a child responding to his mother who has just called to her child to tell him that it is dinner time.

(191) I'm coming!

VENIR, however, contains only the underspecified relation R. On the one hand, we have seen that due to the salience of space and movement in human experience as well as our knowledge of how mobile entities like humans behave in the real world, the end state of VENIR's orientation can be inferentially physical localization even in the absence of a locative destination complement (see example (162) above). On the other hand, since the

⁶⁴ One informant judged this sentence to be odd. A possible explanation is that VENIR's lack of an intrinsic notion of localization makes it less appropriate than COME to describe non-prototypical change-of-localization situations such as web navigation.

verb itself does not contain localization in its semantics, it cannot be used to *focus* on this end state, and cannot therefore be used to focus on the *arrival* portion of the event. Thus, sentence (192), while not overwhelmingly unacceptable, is nonetheless odd. Physical localization can be inferred from the context, but using VENIR to focus on arrival (rather than on the movement as a whole) yields an effect of marginality⁶⁵.

(192) ?Je viens!

In contrast, ARRIVER, a verb which presumably does contain localization as an end state, is fully acceptable in this use⁶⁶.

(193) J'arrive!

A second difference between COME and VENIR in a movement context concerns what Bouchard (1995) calls the "continuance" effect, i.e. the implication of X's lasting presence at the destination after the movement event. Bouchard points out that ARRIVER tends to imply that X remains for a prolonged period at its destination (195), while VENIR tends to imply that X moves on shortly after reaching its destination (194) (p. 171)⁶⁷. In contrast, COME is equally compatible with both a 'continuance' and a 'temporary stay' reading, as shown in (196) through (198).

⁶⁵ The use of the reflexive pronoun makes this sentence acceptable in Quebec French (*Je m'en viens*). However, because S'EN VENIR is potentially a fixed expression (see discussion of methodology, section 2.3), and because the present study focuses on standard French, I will not attempt to explain this observation here.

⁶⁶ Note that the oddness of the VENIR example cannot be attributable to the absence of a progressive aspect in French, for if it were, we should obtain the same oddness for ARRIVER.

⁶⁷ Note that Bouchard's (1995) account for the continuance contrast between VENIR and ARRIVER differs from the analysis presented here. According to him, this contrast is attributable to the fact that VENIR implies internal development while ARRIVER does not (p. 168-171). However, this explanation is inadequate: the continuance effect does not concern the internal development of the event itself, but rather a new movement event after the temporal boundary of the particular movement event being described.

- (194) André Breton est venu à Montréal en 1942. (= 'He visited Montreal in 1942')
- (195) André Breton est arrivé à Montréal en 1942. (='He took up residency in Montreal in 1942')
- (196) André Breton came to Montreal in 1942.
- (197) = 'He visited Montreal in 1942'
- (198) = 'He took up residency in Montreal in 1942'

COME's meaning contains localization as an end relation, which has the effect of anchoring X at the deictic center. Assuming that continuance is based on an anchoring at a point, COME's localization component therefore supports a reading where there is a lasting stay at a point, thus accounting for the reading in (198). Note, however, that localization, while supporting a continuance reading, is nonetheless fully compatible with a non-continuance reading. Consequently, COME's localization component does not act as a constraint with respect to continuance: it provides the notion of anchoring necessary to reach a continuance reading (as in (198)), but it does not favor that reading over one of temporariness (as in (197)).

On the other hand, VENIR's meaning includes a more general end state, one that does not involve a localization of X at a point. In general, our expectation about mobile entities (especially volitional mobile entities such as humans) is that they can resume movement after stopping. Thus, the default assumption for a motion event is that the end state is temporary. Since VENIR's meaning contains no component suggesting anchoring at a point, this verb does not provide any information to override our default assumption of continued mobility. As a result, in general VENIR tends to favor a 'temporary stay' reading. On the other hand, when contextual information is sufficiently rich to construct a 'continuance' situation, VENIR allows this type of reading, as in the following examples.

- (199) André Breton est venu à Montréal en 1995. Ça lui a plu, et donc il a décidé de rester.
- (200) Je suis venu pour rester.
- (201) Viens habiter chez moi!

The 'continuance' contrast between COME and VENIR also explains why certain inanimate objects are unacceptable subjects of VENIR but acceptable with COME. In (202) and (203), the subject refers to an inanimate object involved in a motion situation. However, according to our world knowledge, when an entity like a package is delivered it typically *stays* at the destination, so a delivery context favors a continuance reading. Consequently, COME (like ARRIVER) is acceptable in this context because its meaning supports continuance, while VENIR, whose meaning favors non-continuance as a default reading, is not acceptable in this use.

- (202) A package came for you today.
- (203) *Un colis est venu pour toi aujourd'hui.
- (204) Un colis est arrivé pour toi aujourd'hui.

An alternative explanation attributing this contrast to different animacy specifications in the lexical meanings of COME and VENIR is contradicted by the fact that in other contexts, there is no constraint on animacy for VENIR's subject:

- (205) Ce colis vient de Paris.
- (206) Ce colis vient d'arriver.
- (207) Cette route vient de Québec.
- (208) Son col venait à la hauteur de ses oreilles. (Grand Robert de la langue française)
- (209) La brume venait vers eux, spectrale, à une vitesse folle. (Peisson, cited in the Trésor de la langue française)

A final surface difference resulting from the asymmetry in the semantics of COME and VENIR concerns non-prototypical destination PPs. When the destination PP of COME/VENIR refers to a concrete entity that is not a prototypical location, such as a human

(an entity that typically cannot function as a localizer due to our world knowledge), as in (210) and (211), we interpret the destination phrase metonymically as referring to *the location of the person* (i.e. of the SC). This promotion of a person to the status of destination places emphasis on the end-relation established between the subject and the SC himself, suggesting that the movement is directed toward some kind of important interaction with the SC. In (210) and (211), context allows us to infer that this interaction consists of communication between the subject 'John' and the SC 'me'. But the corresponding French sentences (212) and (213) are odd⁶⁸. This is because in the case of VENIR end-localization is provided solely by an element external to the verb, i.e. the preposition À. Because COME's meaning expresses localization intrinsically and thus more directly, it can be used with non-prototypical complements that require special inferences in order to be interpreted. In contrast, because localization can be expressed only indirectly with VENIR, uses such as the one below, which require a non-prototypical construal of localization, are more difficult to obtain⁶⁹.

- (210) John came to me about his problems.
- (211) When you need help, you can always come to me.
- (212) *Jean est venu à moi à propos de ses problèmes.
- (213) *Quand tu as besoin d'aide, tu peux toujours venir à moi.

To summarize, in the present section I have shown that both the similarities and the differences of the 'motion' uses of COME and VENIR follow directly from their monosemous semantic representations. Moreover, the situational notion 'motion' derives

⁶⁸ We can, of course, replace these with the acceptable sentences Jean est venu me voir à propos de ses problèmes and Quand tu as besoin d'aide, tu peux toujours venir me voir, but in such sentences, VENIR does not have a destination complement referring directly to a person.

⁶⁹ Note that the use in question is attested for VENIR in very marked contexts, such as when the intended SC is God: *Je viens à vous, Seigneur, père auquel il faut croire* (Hugo, cited in the *Trésor de la langue française*). In such a context, the exceptional properties of the SC and of the end-relation established compensate for VENIR's "weak" expression of localization.

from the intrinsically encoded idea of 'orientation toward a point that is accessible to a Subject of Consciousness'. In the next section, I turn to a specific subset of motion uses: those which involve movement followed by an action carried out at the physical destination.

4.2 Motion + action

In this section I discuss uses of COME and VENIR that express the combined notion of a motion event with an action situated at the destination of the movement. Although both verbs can be used to describe a motion event that is aimed at an action, they differ in how they can accomplish this. These differences follow from the asymmetry in core meaning along with asymmetries in the grammatical systems of English and French.

In our experience of the world, willful human movement is often directed at accomplishing an action at the destination location. That is, when we change locations, it is often with the intention of doing something specific at the place to which we are moving. Given the nature of the semantics of COME and VENIR, when these verbs are used in a context supporting a motion reading, there are several possible ways for them to express a situation of movement aimed at and immediately followed by an action. One possibility is to adjoin to COME/VENIR an action-verb infinitive introduced by the purpose-expressing elements TO/POUR, as in (214) and (215). Another possibility is use a coordinating conjunction to join COME/VENIR with the action-verb, as in (216) through (219).

- (214) John came to talk to me yesterday.
- (215) Jean est venu pour me parler hier.
- (216) Come and help us set the table.
- (217) *John came and helped us set the table.*
- (218) Viens et aide-nous à mettre la table.
- (219) Jean est venu et nous a aidés à mettre la table.

In general, VP and sentential coordination are used to present events in the order of the coordination, often with a relation of causation (compare John went into the house and he

saw Mary and John saw Mary and he went into the house). Thus, we interpret the coordination in (216) through (219) as describing a relation of consecutiveness between the motion event and the action. And if the action takes place immediately after the motion event, the location of this action must logically be the end location of the motion event. Since in a 'motion' use we construe the deictic center as 'the location of an SC (e.g. the speaker)', for a sentence like (217) we obtain an interpretation paraphrasable as follows: 'John moved to the location of the speaker (hearer, etc.), and immediately afterward at that location, he performed the action of setting the table'. Finally, because our default assumption about human motion is that it is willful and purpose-driven (i.e. when people go places, it is typically in order to accomplish actions at their destinations), our default assumption for sentences (216) through (219) is that the action referred to by the second verb phrase constitutes the purpose behind the motion event. Thus, unlike in the COME/VENIR + TO/POUR + INF use in (214) and (215), the notion of purpose is inferred rather than explicitly expressed in (216) through (219).

Despite being highly similar, the meanings obtained for the two constructions are not identical. In the AND/ET-construction, because of the semantics of the coordinating conjunction AND/ET, both events must be realized in order for the sentence to be true. On the other hand, in the TO/POUR + INF construction, because the action verb is introduced by an expression of *purpose*, realization of the motion event does not entail realization of the action. This is shown by the acceptability of (220) and (221), compared with the unacceptability of the ET/AND construction in (222) and (223).

- (220) John came to talk to me yesterday, but I wasn't home, so he left me a note instead.
- (221) Jean est venu pour me parler hier, mais je n'étais pas chez moi, donc il m'a laissé une note à la place.
- (222) *John came and talked to me yesterday, but I wasn't home, so he left me a note instead.
- (223) *Jean est venu et m'a parlé hier, mais je n'étais pas chez moi, donc il m'a laissé une note à la place.

Because the notions of consecutiveness and purpose seen in these uses are not attributable to special semantic properties of COME and VENIR but rather to the semantic properties of TO/POUR on the one hand and those of AND/ET on the other (in combination with world knowledge about the actions involved), these means of expressing a 'motion with purpose' situation are available to motion verbs in general both in English and French. However, due to specific properties of the semantic representations of COME and VENIR, there are two additional ways to express 'motion + action': the 'progedience' construction and the use of a present participle. In the following subsections, I discuss these two uses in turn.

4.2.1 Progredience: COME/VENIR + bare-INF

It is possible to express purposeful motion ending in an action through the *progredience* construction⁷⁰, in which the motion verb is immediately followed by an infinitive whose action is interpreted as taking place at the location where the movement ends. For example, the sentence (224) describes a situation in which the subject's referent 'Jean' undergoes a change of location, and at the end-point of this movement, he carries out the action of eating. This use is obtained compositionally from the invariant meaning of VENIR: the latter contributes the idea that 'Jean' is oriented towards a relation R with o, as schematized in (225).

⁷⁰ This term was first proposed by Damourette and Pichon (1911-1950), and then adopted by Bouchard (1995).

(224) Jean vient déjeuner.

As in the basic motion senses of VENIR, knowledge about context and background brings us to interpret o spatially as the location of a Subject of Consciousness such as the speaker or hearer. We thus obtain the interpretation 'Jean is oriented toward relating to the spatial point "location of the SC" '. As Bouchard (1995, p.132) points out, the infinitive DÉJEUNER does not identify o, as shown by the fact that the latter can be explicitly expressed through a locative expression even when the INF is present⁷¹.

(226) Jean vient chez nous déjeuner.

Instead, the INF is an adjunct providing information about the end state: it indicates *how* Jean relates to 'here' at the end of the orientation, as schematized in (227). This is possible because of the maximally general nature of VENIR's intrinsic end relation: VENIR indicates that the orientation is toward X ending up in some relation with o, but it does not tell us anything about the nature of this relation. Thus, an INF can be adjoined to VENIR to specify the nature of R.

The most natural way for a concrete entity like a human to relate to a spatial point *via* an action is to perform the action while being located at that spatial point. Thus, we infer that at the end of the motion event, the subject's referent is in a relation of *spatial localization* with

⁷¹ Note, however, that I depart from Bouchard's (1995) analysis of progredience, since it is based on the assumption that VENIR's meaning has X-bar structure, an assumption which I reject on theoretical grounds (see section 3.1).

the location of the SC. We hence obtain the interpretation: 'Jean is oriented toward eating lunch at the location of the SC'. The most natural way for a human to be oriented toward establishing a relation of localization with a spatial point is move to that point, so the meaning constructed compositionally based on lexical semantic content and extralinguistic knowledge from sentence (226) is paraphrasable as: 'Jean moves to the SC's location (e.g. 'here') and then performs the action of eating lunch at that location'.

Thus, when we adjoin an INF to VENIR, this INF serves to describe the relation R established at the end of the orientation between X and o, the latter being construed as a point in space. The fact that the INF is not linked to VENIR via a conjunction (such as POUR or ET) but rather directly applied to a sub-part of VENIR's semantic structure explains the observation, made by Damourette and Pichon (1911-1950, # 1055) and Bouchard (1995, p. 130), that in the progredience construction the motion event and the ensuing action are presented as being fused into a single complex event. This fusion is demonstrated by the fact that realization of the motion event entails realization of the second action. If we affirm the former while negating the latter, this leads to unacceptability, as in the following examples.

- (228) *Jean est venu déjeuner, mais finalement il n'a rien mangé.
- (229) *Jean est allé à l'épicerie acheter du pain, mais l'épicerie était fermée et il est donc rentré chez lui les mains vides.

Furthermore, Damourette and Pichon (1911-1950, #1055, as cited by Bouchard, 1995, p. 130) point out that the progredience construction is possible because the INF describes a "verbal virtuality", a property necessary for this verb's meaning to "symphenomenalize" with the event denoted by VENIR. Bouchard (1995, p. 135) further argues that as a result of the interaction of this verbal virtuality with the concrete, spatially construed deictic center, the end-relation expressed by VENIR necessarily has non-effective reference.

This observation that the progredience construction depends crucially on non-effective reference of the end-relation has important consequences when we examine the English verb COME. Unlike VENIR, COME contains the specific end relation of localization. When a locative expression is used, it specifies the reference of this localization relation in COME's semantic structure. Crucially, this can be assumed to force effective reference of COME's

localization component, blocking acceptability of the progredience construction, as shown in (230) and (231). On the other hand, when no locative expression is used, the localization relation in COME's meaning can be non-effective, and an INF expressing a "verbal virtuality" can thus apply to L, leading to an acceptable progredience use as in (232) and (233).

- (230) *Come here eat your dinner!
- (231) *John wants to come to the restaurant eat breakfast.
- (232) Come eat your dinner!
- (233) John wants to come eat breakfast.

In the case of VENIR, no such conflict arises from the presence of a locative complement because VENIR contains no intrinsic localization component. Rather, in VENIR's progredience use, the notion of (spatial) localization is inferred from context/background or, in the case of an explicit locative expression, it is provided by the latter. Thus, while the use of a locative expression blocks progredience for COME, it does not do so for VENIR.

- (234) Viens ici manger ton souper!
- (235) Jean veut venir au restaurant manger un gros déjeuner avec nous.

Another structural peculiarity of English progredience follows from properties of English grammar. In English, there are two possible forms of the infinitive: the TO-form (*To err is human; I want to eat the cake*) and the bare form (*I can eat the cake*). It is reasonable to assume that TO, which is also typically used to introduce an NP, always takes a *point* as an argument. Thus, when TO introduces a verb, this has the effect of causing the verb to be treated as a point. So when TO + INF is used as a complement of COME, the INF cannot be co-referential with the end-relation as a whole, but rather only with the point o⁷². Hence,

⁷² This is precisely what happens in the 'state-entering' uses involving a verbal complement (see section 4.6), which have the structure COME + TO + INF. Bouchard (1995, p. 132) points out a similar structural contrast between the VENIR INF and VENIR À INF constructions in French.

TO+INF is incompatible with progredience, a construction that relies on an INF specifying the nature of the end-relation in VENIR/COME's semantics. Only the bare infinitive form can provide the "verbal virtuality" necessary for the progredience construction⁷³.

Thus, while (236) is an example of progredience, (237) is not. That is, example (236) has the entailment properties of progredience: if the motion event ('come') takes place, then necessarily so does the event 'buy some bread'. In (237), the only possible reading for TO is a 'goal' reading (paraphrasable as 'in order to'), and unlike (236), this sentence is acceptable even if the motion event takes place but the second event does not. This possibility is made clear by the acceptability of sentence (239) as compared with (238).

- (236) John will come buy some bread. (progredience reading only)
- (237) John will come to buy some bread. (non-progredience reading only)
- (238) *John will come buy some bread, but he'll be disappointed when he gets here and realizes we've already sold our last loaf. (progredience reading only)
- (239) John will come to buy some bread, but he'll be disappointed when he gets here and realizes we've already sold our last loaf. (non-progredience reading only)

Note, however, that the English bare INF form is neither formally nor distributionally equivalent to French INF. The latter is formally complex (stem + infinitive suffix), while the former is formally simplex. French INF can be used in a variety of contexts: it can function as a noun (240) or appear as the complement both of modal verbs (241) and various other verbs without a preceding element like English TO (242).

⁷³ In addition, it is possible that the TO blocks the INF from entering into the syntactically local relation with GO that is required in order for the INF to directly specify the content of the end-state relation.

- (240) Marcher est plus agréable que rouler en auto.
- (241) Je dois/devrais/peux/pourrais/etc. travailler ce week-end.
- (242) J'aime/J'entends/Je pense/Je souhaite/etc. visiter ce musée.

The English bare INF, on the other hand, is more restricted: it can only appear after modal verbs, as shown in the following.

- (243) *Walk is more pleasant than drive. (Walking is more pleasant than driving.)
- (244) I will/must/should/can/could/etc. work this weekend.
- (245) *I like/intend/think/wish/etc. visit this museum. (I like/etc. to visit this museum.)

Because the progredience construction is based on the idea of a "fusion" between COME's meaning and that of the INF, the distributional restrictions of the English bare INF apply also to COME: the latter must either itself be an infinitive (249) or be preceded by a modal such as WILL, COULD, CAN, WOULD, etc. (248). The other possibility is for COME to be in the imperative mood (250). This is not surprising, if we posit that English bare INF and the English imperative – two formally identical elements which both involve *irrealis* – are two functional manifestations of a single underlying grammatical element.

- (246) *He comes eats with us. (Present indicative)
- (247) *He came eat with us. (Past indicative)
- (248) He will come eat with us. (Future)
- (249) He intends to/can/must/should/etc. come eat with us. (Modal + INF)
- (250) Come eat with us! (Imperative)

Given the broader distributional properties of French INF, the constraint observed for COME does not arise for VENIR's progredience: the latter does not require that the motion verb be in any particular morphological form, and hence all of the following sentences are acceptable.

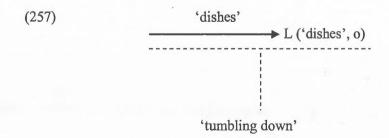
- (251) Il vient manger avec nous. (present indicative)
- (252) Il est venu manger avec nous. (Past indicative)
- (253) Il viendra manger avec nous. (Future)
- (254) Viens manger avec nous! (Imperative)
- (255) Il entend/peut/doit/devrait/etc.venir manger avec nous. (Modal + INF)

4.2.2 COME/VENIR + V-ing/en V-ant

In the present subsection I now turn to another possible way to use COME to express 'motion + action': the construction COME + V-ing or VENIR + EN + V-ant. Due to intrinsic differences between the English and French present participle, the interpretational possibilities for this construction are more restricted for VENIR than for COME. I therefore discuss the two verbs separately, starting with COME.

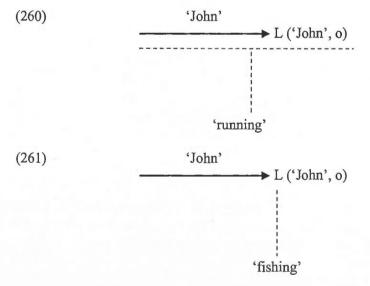
The present participle is a modifier, i.e. an element whose meaning is predicated of another element. Thus, adjoining a present participle to a verb results in the participle's meaning applying predicatively to the main verb's meaning. One logical possibility is that the present participle's meaning is taken to modify the whole meaning of the verb. When the present participle is a manner of movement verb and the main verb is COME, predicating the participle's meaning of COME's meaning as a whole yields the 'manner of movement' use exemplified in (256) and schematized in (257). In this example, the meaning of tumbling – a manner of movement verb – applies to COME's meaning as a whole, and the motion event described by COME is thus depicted as having 'tumbling' as a manner.

(256) When the waiter bumped into the table, the dishes came tumbling down.



Another logical possibility, however, is that the present participle is taken to modify a *component* of the verb's meaning. This is what distinguishes sentences (258) and (259) below, whose meanings are schematized in (260) and (261), respectively. In (258), elements from the context favor a reading in which the meaning 'running' applies to the whole act 'came', yielding a 'manner of movement' reading. In (259), on the other hand, context favors a reading in which 'fishing' modifies not the global event expressed by COME's meaning as a whole (i.e. 'fishing' is not the manner in which John came), but rather only a part of the verb's meaning. More specifically, the participle modifies the *localization relation* in COME's semantic representation. In a movement context, localization is construed as the state of 'being at the SC's location'. We thus obtain the interpretation: 'John underwent movement to the same location as the SC, and at that location, he undertook the action of fishing'.

- (258) When I called John, he came running to see what was the matter.
- (259) John came fishing yesterday.



Because the end relation in COME's meaning is localization at the deictic center o, and because contextual information in the sentences above supports a spatial interpretation of o and the orientation, we obtain a motion reading, with the destination of the movement being the location of an SC such as the speaker (262) or the hearer (263). Thus, we infer that the

subject's referent *joins* the SC in the activity referred to by the *V-ing*. In contrast, when contextual information does not support the idea that the SC himself engages in the activity, we obtain a reading in which the subject's referent carries out the action alone, as in (264).

- (262) John came jogging yesterday, and we had a great time.
- (263) Did John come jogging yesterday? I remember that you said you had been trying to get him to exercise with you...
- (264) John came asking for help yesterday.

We have seen that when the relation L is specified via an explicit locative, L has effective reference, and that in order for us to obtain a 'verbal virtuality' interpretation of an adjunct verb allowing the two verbs' meanings to "fuse" into a single complex event, the localization relation in COME's meaning must be non-effective. That is, L must not be specified via an explicit locative element in the sentence. When such a locative is present, as in (265), COME + V-ing cannot receive a 'motion with purpose' reading, but rather only a 'manner of movement' reading, as shown below. When there is no locative, the relation L can be interpreted as having non-effective reference, making a 'motion with purpose' reading possible. Unlike (265), sentence (268) is thus ambiguous between a 'manner of movement' and 'motion with purpose' interpretation.

- (265) He came to the park running.
- (266) Possible interpretation: 'He came to the park, and the manner of this movement was *running*'
- (267) Impossible interpretation: 'He came to the park, and when he reached the park, he started running'
- (268) He came running.
- (269) Possible interpretation 1: 'The manner of his coming was running'
- (270) Possible interpretation 2: 'When he reached his destination, he started running'

The semantic effect of this COME + V-ing 'motion with purpose' use is similar to that of 'progredience'. On the one hand, the non-effective reference of L allows the present participle verb to be interpreted as a "verbal virtuality", forming a complex event with the

main verb COME. Thus, as in progredience, the sentence describes an action in which the *V-ing* action begins (virtually or actually) at the same time as the motion event described by COME. Hence, just as we saw for progredience, it is impossible to affirm the main movement (provided by COME) while implying the negation of the other action (provided by *V-ing*), as shown in (271).

(271) *John came jogging yesterday, but when we got to the park and put on our running shoes, he changed his mind and decided to sit down and read while I ran.

Turning now to VENIR, recall that the end relation of the orientation in this verb's meaning is R, i.e. general relatedness. At first glance, we should expect it to be possible to use VENIR, like COME, with a present participle to obtain the 'motion with a purpose' sense. However, English and French bear a grammatical difference that prevents this. In French, the adverbial use of the present participle form *V-ant* (i.e. the French "gérondif") is generally restricted to the function of modifying a whole clause, as in (272). When *V-ant* is used to modify only a verb and not a whole clause, it must be preceded by EN.

- (272) Voyant qu'elle n'avait pas besoin d'aide, j'ai continué sur mon chemin.
- (273) J'ai mangé en réfléchissant à mon analyse.

Assuming (in conformity with the general monosemous approach to lexical semantics) that this is the same EN that is used to express containment in spatial sentences like (274), the use of EN with *V-ant* has the effect of forcing a containment reading. A containment relation can involve the containee occupying only a part of the container, or alternatively, the whole container. This is reflected in the two interpretations possible for sentence (275), schematized in (276) and (278), respectively, and paraphrased in (277) and (279).

- (274) J'ai acheté des tomates en boîte.
- (275) J'ai mangé en marchant jusqu'à l'école.

(276)	'eat' 'walk'	,
(277)	'The act	t of eating lasted for part of the duration of the act of walking
(278)	'eat'	

(279) 'The act of eating lasted for the entire duration of the act of walking'

Crucially, in either case the resulting relation is one of *simultaneity*. In other words, EN's semantic 'containment' property forces a simultaneity reading on the EN + V-ant participle construction. As a result, COME's 'motion with purpose' use, which requires the possibility that the *V-ing/V-ant* action occur at the destination of the movement expressed by COME/VENIR, is not possible for VENIR. Thus, while the English sentence (280) is ambiguous between a 'manner of movement' reading and a 'motion with purpose' reading, its direct French translation (281) can have only a 'manner of movement' reading. Likewise, while (282) unambiguously calls for a 'motion with purpose' reading, its French translation (283) is unacceptable.

- (280) John came running.
- (281) John est venu en courant.
- (282) John came fishing.
- (283) *John est venu en pêchant.

In conclusion, in the present section I have shown that while both COME and VENIR can express 'motion with a purpose', they cannot always do so in the same way. On the one hand, both verbs can be linked to a second verb expressing an action using an explicit connector such as an element expressing purpose (TO/POUR) or a coordinating conjunction (AND/ET). On the other hand, while both verbs can express 'motion with purpose' via a progredience construction, due to the difference in semantics between these two verbs (i.e. nature of the end relation), COME is subject to restrictions that do not appear for VENIR. Finally, due to a grammatical difference between French and English – i.e. properties of the present participle

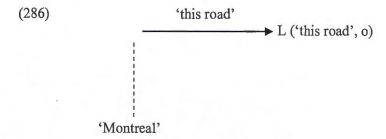
form used to modify a verb – only COME can be used with a present participle to express 'motion with a purpose'.

4.3 Static spatial extension

In this section I discuss another type of spatial use of COME and VENIR: static spatial extension. This type of use emerges when orientation is interpreted spatially but the subject refers to an object that is immobile and has considerable extent in space, as in sentences (284) and (285).

- (284) Cette route vient de Montréal.
- (285) This road comes from Montreal.

Combining the elements present in sentence (285) with the intrinsic semantics of COME, we obtain the meaning in (286).



This meaning does not intrinsically express movement, nor even the more abstract concepts of change and time. Thus, as Bouchard (1995) shows for VENIR, the fact that we do not obtain a dynamic spatial reading but rather a static spatial reading for this type of sentence is entirely attributable to extralinguistic knowledge about the entities to which the arguments refer: the most natural way for a road to be oriented towards relating to a location is not to undergo movement, but rather to extend spatially to this location (p. 138-139)⁷⁴. Since o is 'a point that is accessible to an SC', the end-point of the road's spatial extent is the *location* of

⁷⁴ Hence, a notion like *fictive motion* (see Talmy, 2000) becomes completely unnecessary under the present analysis.

an SC (such as the speaker). Finally, the phrase *from Montreal* specifies that the source localization – i.e. the starting point – of the road is Montreal, a city.

In (285) above, COME's intrinsically encoded end-relation is localization, and when the verb's meaning is interpreted in the domain of space, we obtain the idea that the end-relation between 'this road' and o is one of spatial localization, yielding the notion of spatial end-point. As for VENIR, its semantics contains no notion of localization. However, given the centrality of spatial localization in human experience of the world, and given that the nature of the arguments present in the sentence favor construal in the domain of space, for sentence (284) above background knowledge leads us to interpret the underspecified R relation in VENIR's meaning as spatial localization. Thus, the 'static spatial extension' sense exists not only for COME, whose meaning intrinsically contains the notion of localization at a point, but also for VENIR, whose meaning does not. Moreover, as shown in (284), no explicit destination complement is needed to obtain this reading, since the deictic center, once interpreted spatially, is specific enough to allow us to pick out the intended location.

In sentences like (284) and (285) above, the FROM/DE- complement provides information about the origin point of the immobile spatial entity (e.g. the road). If we omit this complement, as in (287) and (288), we are left with a sentence whose elements describe only the end point toward which the entity is oriented, i.e. the SC's (e.g. the speaker's and hearer's) location. These sentences tell us only that the road extends up to the location of the speaker/hearer, and this amounts to saying that the speaker and hearer are standing by or on the road. Crucially, since this information is already part of their knowledge, sentences (287) and (288) are completely uninformative, hence their unacceptability.

- (287) *This road comes.
- (288) *Cette route vient.

The difference in intrinsic meaning between COME and VENIR has consequences for these verbs' ability to express a situation of static spatial extension. In the case of COME, the verb's semantic representation specifies that the end-relation is localization at an end point. This in turn implies that the source of the orientation is also localization at a point, an inference represented by the gray portion of the following schematization.

(289)
$$X \longrightarrow L(X, o)$$

Thus, in a sentence like (290) below, even though there is no source or destination expression (only a 'path contour' expression), we can still obtain an 'extension' reading. The sentence tells us that the path is oriented toward localization at an endpoint o, construed spatially as an SC's location (e.g. the speaker's location 'here'). Because the verb encodes localization at an end-point, we infer that the origin of the orientation is also a localization, i.e. a spatial starting point. The PP through the valley provides further information about the contour of the path itself. The resulting interpretation is: 'The path extends between two points, one implied point and the location here, along a path described as through the valley'.

(290) The path comes through the valley. (Webster's Third New International)

VENIR's meaning, on the other hand, contains only the maximally general R as an end relation, allowing us only to infer an equally general source relation, as schematized in (291). Given the underspecified character of this relation, the range of possible real-world source relations is too broad to allow us to infer a specific source relation. Hence, there is nothing in VENIR's meaning to support the inference of a source localization. Crucially, I assume in this study that the notions starting point and endpoint (both in the spatial domain and in abstract domains) rely on the notion of localization. Since VENIR's meaning does not support the inference of a source localization, it cannot supply the notion of starting point needed to bring about a static extension reading. Consequently, VENIR is not as acceptable as COME when the complement merely describes the *contour* of the path rather than the path's starting point, as shown in (292). As I will show in later sections, the fact that COME's meaning supports the inference of a source point while VENIR's meaning does not allows us to account for several other important surface asymmetries between COME and VENIR.

(292) ??Le sentier vient à travers la vallée.

The 'static spatial extension' use thus relies on the (explicit or implicit) idea of a localization at a source. Localization, in turn, requires that the ground of the relation have the ideal properties of a ground (as pointed out by Vandeloise, 1991, p. 168), including the property of immobility when localization is construed in the domain of space. Concrete entities such as cities are, by virtue of their immobility, ideal grounds. Highly mobile entities such as people, on the other hand, are not. This explains why we cannot obtain a 'static spatial extension' use for COME or VENIR when the source or destination PP refers to a human, as in (293) and (294).

- (293) *The road/sidewalk/rug comes from/to John.
- (294) *La route/le trottoir/le tapis vient de/à Jean.

On the other hand, since a point on one's body is (relatively) fixed with respect to the body itself, such a point can act as a ground, provided that there is an element that defines the relevant search domain as a person's body (see Vandeloise's, 1991, 160-173, discussion of search domain and localization with respect to a part of an object). In French, the inalienable construction using the dative personal pronoun does just that: it defines a person as the relevant search domain, and the PP or NP complement following it is taken as applying within that field, as in (295) below. Thus, when the dative inalienable construction is used with VENIR, as in (296), the result is the expression of 'static spatial extension' with respect to a point on the SC's body. The pronoun serves to identify the intended search domain as a person (ME, TE, LUI, etc.), and the PP refers to a point within this domain, i.e. a body part interpreted as belonging to this person. Since the NP within the PP specifies the reference of the deictic center, 'a point that is accessible to an SC', the dative pronoun is taken to refer to the SC in question. The result is a situation in which a point on the body serves as a limit for a vertical measure of entity X; the other extremity is inferable from world knowledge as being the surface on which X is standing. English has no comparable dative pronoun allowing an inalienable construction (as shown in (297)), so this specific construction is not possible for COME (as shown in (298)).

- (295) On lui a coupé la main.
- (296) Jean me vient à l'épaule⁷⁵.
- (297) *They cut him the hand off.
- (298) *John comes me to the shoulder.

In contrast, when there is no element to define the body as the search domain, the use of a body part PP to express 'static spatial extension' is odd in French (example (299)). Furthermore, in contexts where the inalienable construction is impossible because the referent is not an inalienable part of the SC's body, the effect is also one of oddness (example (300)). As for COME, it can be used in this context with little or no awkwardness. This difference in acceptability is attributable to the difference in COME's and VENIR's semantic richness: since COME's meaning supports the implication of a source localization while VENIR does not, and since 'static spatial extension' relies on the idea of an explicit or implied source localization, VENIR is less acceptable than COME in marginal contexts such as this.

- (299) *Jean vient à mon épaule.
- (300) *Sa robe vient à ses chaussures.
- (301) (?) Jean comes to my shoulder.
- (302) (?)Her dress comes to her shoes.

Finally, it should be noted that the slight awkwardness of (301) and (302) can be alleviated in English by the use of a directional particle describing the path of the extension. Adding a path-expressing particle adds spatial information to the compositional meaning of the sentence, specifying the nature of the orientation (e.g. 'up' in the case of a human being measured against another person's shoulder, 'down' in the case of a dress being measured

⁷⁵ For this sentence, two informants suggested that VENIR is unacceptable, and that ARRIVER should be used instead. Assuming that ARRIVER contains localization, this is not surprising, since the notion of endpoint is of capital importance in the 'measure' context involved sentences like this one.

against the location of a person's shoes). This additional information makes it easier to identify the intended construal of COME's orientation (i.e. static spatial extension), thus compensating for the slight oddness perceived by some speakers for (301) and (302) and brought about by the use of a point on a person's body as the ground of COME's localization relation. Since French is a satellite-framing language and thus tends expresses path directly on the verb rather than on satellites (Talmy, 2000), it possesses no direct equivalents of the particles UP and DOWN, and hence French offers no equivalent for (303) and (304).

- (303) Jean comes up to my shoulder.
- (304) Her dress comes down to her shoes.

4.4 Actualization

We have seen that the deictic center in COME's and VENIR's meaning is founded on the notion of 'accessibility'. In the semantic uses discussed so far, contextual and background factors favor a situational meaning in which 'accessibility' is achieved through X's being at the same physical location as the Subject of Consciousness. However, since this notion of accessibility is independent of specific domains like space, the deictic center can receive other, non-spatial interpretations depending on context.

I turn in this section to the uses of COME and VENIR that express 'actualization'. These uses emerge when the verb is not followed by a complement and when contextual and background knowledge supports a maximally general construal of the deictic center. This type of use is exemplified in (305) and (306).

- (305) When the time comes to leave, I am always sad⁷⁶.
- (306) Quand vient le temps de partir, je suis toujours triste.

The subject of these sentences refers to a temporal element, a point or period in time. The compositional meaning of the sentences can thus be represented as follows, where L stands for the 'localization' component of COME's meaning and R stands for the 'general relatedness' component of VENIR's meaning.

We thus obtain the general meaning: 'time period X is oriented toward being in a relation (L or R) with o'. Crucially, the sentences contain no complement specifying the nature of the end-relation and of o, so we assign a maximally general interpretation to o. The deictic center is 'a point that is accessible to an SC'. Construing o maximally, we interpret 'an SC' generically as meaning 'all SCs' or 'any SC'. Likewise, the notion of 'accessibility', too, receives a maximally general interpretation. The most general way for an element to be accessible to all SCs is for it to be part of the real world, i.e. for it to exist. An element which is part of the real world fulfills a minimal requirement for the SC to have access to it via experience. Thus, the deictic center is interpreted here as 'existence', the state of being potentially accessible to the experience of all SCs.

The end-relation is thus paraphrasable as follows: 'time period X relates (via L or R) to existence'. For COME, we have 'X is localized in existence', i.e. 'localized in the real world'. To be localized in the real world is to exist. For VENIR, we have 'X relates (in an unspecified way) with existence'. Although this relation is unspecified, the only obvious way for X to relate to existence is for it to be in existence, so we obtain the same end-relation as for COME: 'X exists'. Thus, in its 'actualization' uses, VENIR expresses that X (a time period or an event) is oriented toward being in a relation with the deictic center construed as

⁷⁶ In this sentence the infinitive to leave has undergone extraposition; it is a complement of time and not of comes.

existence. The absence of a specific localization relation in VENIR's meaning does not prevent this verb from functioning in the 'actualization' use, because this use requires only that the end state be one of 'existence', which is compatible with but does not require the notion of localization.

Note that an element's existence is always situated temporally. That is, a given element always exists at a specific time. In the sentences above, the verb's morphology supplies the time of the event (E), so the orientation is situated at E. In other words, at the time specified by the verb's morphology, the subject's referent is oriented toward being in existence. In sentences (305) and (306), COME and VENIR are in the habitual present tense, so the situation is presented as occurring generally.

In English, the progressive tenses present a situation not globally, but rather from the point of view of its internal development. Thus, in sentence (308) below, due to the present progressive, only the orientation, and not the end-relation that it leads to, is situated at the time 'now'. As a result, it is implied that the end-relation itself is situated at some other point in time than 'now'.

(308) Winter is coming.

Given our conception of time as being intrinsically oriented (from past to present to future), the time of the localization relation must be *after* 'now'. The result is that the time period referred to by the subject is *subsequent to* the event time specified by the verb's morphology. The global interpretation obtained is represented in the following.

(309)
$$\begin{array}{c}
\text{'winter'} \\
\hline
L/R \text{ ('winter', 'existence')} \\
\text{'t = now'} \\
\text{'t1 = t + n = future'}
\end{array}$$

Consequently, in sentence (308) the orientation establishes a link between present and future, yielding the idea that the actualization is situated in the *near future*.

Since French has no present progressive, use of VENIR to directly translate English sentence (308) results in slight awkwardness, as seen in (310)⁷⁷. Without supporting background or contextual knowledge, the French present tense typically does not focus on the internal development of the situation expressed by the verb. But if we add richer context supporting an internal development reading, as in (311) and (312), it is the process itself that is emphasized (rather than the endpoint), and VENIR can therefore acceptably be used with a 'future actualization' reading.

- (310) ?L'hiver vient.
- (311) L'hiver vient vite cette année.
- (312) L'hiver qui vient...

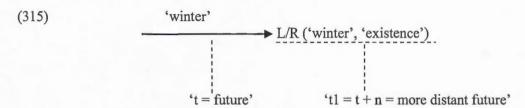
Crucially, the notion of futurity observed in the 'future actualization' use is not due to any intrinsic temporal content in the meaning of COME and VENIR. Rather, it results from the interaction of the notion 'orientation toward existence' with our conception of time as intrinsically oriented from past to future. That is, it results from the interaction of the verb's morphology, the notion of orientation, and the deictic center taken in its maximally general interpretation 'existence'.

When COME and VENIR are placed in the future tense, the result is once again a future reading, but this time without the effect of imminence that accompanies the present tense use seen above. In this case, the event is presented as being farther in the future. Thus, in (313) and (314), the future tense of the verb situates the orientation as holding at some time in the future, and due to our knowledge of time's intrinsic orientation, we conclude that the existence of 'winter' is situated at some time subsequent to the time of the orientation itself, hence in the more distant future, as schematized in (315). Likewise, when COME and

⁷⁷ However, in Quebec French, the widely used form S'EN VENIR can be used in this context: L'hiver s'en vient. Since the present thesis focuses only on standard French, I will not attempt an explanation for this observation.

VENIR are placed in a (non-progressive) past tense, as in (316) and (317), the actualization is placed in the past.

- (313) Winter will come earlier next year.
- (314) L'hiver viendra plus tôt l'année prochaine.



- (316) Winter came early this year.
- (317) L'hiver est venu tôt cette année⁷⁸.

Bouchard's (1995) account of this use of VENIR is similar to mine. However, unlike in the present analysis, he holds that the deictic center 'me-here-now' is interpreted in its temporal facet 'now', yielding the idea 'orientation toward now'. In such an interpretation, it is claimed, VENIR expresses that the event or time period named by the grammatical subject is oriented toward 'now', giving the effect of imminence of occurrence (p. 139-142). However, the fact that this sense can be used not only in the present, but also in the past or future tenses, casts doubt on the idea that the concept 'now' is truly involved. To maintain Bouchard's analysis, it would be necessary to have recourse to the notion of deictic transposition. In sentences like (314) and (316), the temporally construed deictic center would be transferred onto a reference time in the past (L'hiver est venu...) or the future (La crise viendra...). But as I showed above (section 3.2.1), such a mechanism is both unparsimonious and difficult to constrain. Crucially, under the analysis being presented here, no such mechanism is necessary. The orientation expressed intrinsically by COME/VENIR is

⁷⁸ An informant judged this sentence to be unacceptable. This is perhaps due to the existence of ARRIVER, which tends to be used in this type of context. Crucially for the present discussion, the past-tense of VENIR is compatible with the 'actualization of a time period' use, as demonstrated by sentences like *Le moment est venu de partir*.

not toward 'now', but rather toward 'existence', and this orientation holds at a time established by the verb tense. What is expressed consistently in the 'actualization' use is therefore not that 'X is oriented away from being in the future toward being in the present', but rather that 'X is oriented toward existence/actuality'.

Since an event always corresponds to a time period and is thus an inherently temporal element, an event can also be used to obtain an 'actualization' reading. In sentences (318) and (319), X is an event (a crisis), and the sentence tells us that the event is oriented toward being in existence. Thus, the sentences express 'actualization of an event'.

- (318) The crisis came during what was already a difficult time for the economy.
- (319) La grande crise ... est venue parce qu'un monde spéculatif s'est mis en place... (Corpus)

Note that while the actualization expressed in these sentences is close to the notion of 'occurrence', there is an important difference between COME and VENIR, on the one hand, and true occurrence verbs (OCCUR, HAPPEN, ARRIVER, etc.) on the other. Unlike COME and VENIR, occurrence verbs can reasonably be assumed not to contain the deictic center. Thus, while both occurrence verbs and deictic orientation verbs are capable of expressing a situation in which X begins to exist, only COME and VENIR can express the orientation of an event toward being accessible to the experience of the set of all SCs. This contrast stands out if we compare the compositional meanings obtained in the following sentences. Sentences (320) and (322), which contain COME and VENIR, are accompanied by a nuance of subjectivity: the event being described is presented as somehow having relevance to the speaker (or other SC). This is made clear by the oddness of sentences (325) and (327), where the subject refers to an event occurring at a time that is remote from the present, one that is in no way construable as being accessible to the experience of an SC.

- (320) The crisis came in 1997/at a bad time/as a result of...
- (321) The crisis happened/occurred in 1997/at a bad time/ as a result of...
- (322) La grande crise ... est venue parce qu'un monde spéculatif s'est mis en place... (Corpus)
- (323) La grande crise est arrivée parce qu'un monde spéculatif s'est mis en place...
- (324) The big bang happened/occurred over 13 billion years ago.
- (325) *The big bang came over 13 billion years ago.
- (326) Le big bang s'est produit il y a plus de 13 milliards d'années.
- (327) *Le big bang est venu il y a plus de 13 milliards d'années.

Not only events and time periods, but also entities can enter into existence. Thus, when the grammatical subject of COME and VENIR refers to an entity such as a person, this results in a situation in which a person begins to exist, as illustrated in (328) and (329).

- (328) Those who came before us faced much harsher living conditions.
- (329) Cette décision aura beaucoup d'impact sur ceux qui viendront après nous.

In these sentences, the event is placed in a broad social or historical context. This use is obtained in the same way as the 'actualization of an event' sense above: the person's existence is treated as an event that occurs in a general historical or social context. Thus, this sense requires only the establishment of a general relation between the subject and the deictic center construed as 'existence'. Since both verbs specify orientation toward an end state that is a relation with the deictic center (localization for COME, underspecified relatedness for VENIR), both verbs provide sufficient information to obtain this reading.

However, when a person's entering into existence is not presented abstractly against the general backdrop of history (as above) but rather concretely, as in the context of birth, the situation is different. Based on our extra-linguistic knowledge, we view birth not simply as an abstract beginning of existence, but as a concrete phenomenon, a passage from one physical state to another. Thus, a 'birth' reading, which hinges on the notion of transition, requires minimally an implied source for the orientation. But as we saw above, in order for the verb to

imply localization at a source point, it must minimally contain localization at an end point. Since COME has such a component but VENIR does not, only COME can be used to express 'birth', as shown in the following.

- (330) When the baby came, the family's routine changed.
- (331) *Quand le bébé est venu, la routine de la famille a changé.

All of the types of subjects examined in this section (time periods, events and people) can be viewed as entering into existence more or less spontaneously. In contrast, according to our world knowledge, inanimate entities are not seen as entering into existence spontaneously. Rather, we generally see them as being *made by someone or something*. Hence, when an inanimate entity is used as the subject of COME or VENIR, this does not generally result in an acceptable 'actualization' reading, as shown in the following.

- (332) *This chair/this tree/this river/the first computer came...
- (333) *Cette chaise/cet arbre/cette rivière/le premier ordinateur est venu(e)...

However, in a richer context, inanimate entities such as artifacts, projects, etc. do lead to acceptable sentences for COME, as shown in (334) and (335) below. In (335), the manner modifier how is applied to the project's orientation toward realization/actualization (i.e. toward being in existence); thus, emphasis is placed on progress rather than on the project's mere entering into existence, making the sentence interpretable. In (334), the modifier a long way attributes a measure to X's orientation toward its present state, yielding a meaning paraphrasable as: 'the change undergone by computer technology and which has caused it to be in its present state of experienceability is of great extent', i.e. computer technology has undergone a great deal of development leading up to its present state of existence. Crucially, however, the specific uses seen in these sentences rely on the notion of transition from one stage to another, which in turn relies on the notion of localization at a source. And since VENIR does not contain end-localization and thus does not imply source localization, it is not acceptable in 'progress' contexts such as these, as illustrated in (336) and (337).

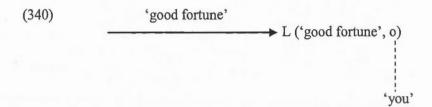
- (334) Computer technology has come a long way since the 1970s. (Longman)
- (335) How is your project coming?
- (336) *Comment ton projet vient-il?
- (337) *Les ordinateurs sont venus très loin depuis les années 70.

4.5 Individual experience

We saw above that when the subject of COME and VENIR refers to an abstract element and no complement is present, the deictic center, 'a point that is accessible to an SC', receives a maximally general interpretation as 'accessibility to the experience of all SCs', i.e. 'existence'. X's end relation with o (general relatedness for VENIR or localization for COME) is thus construed as 'being in existence'. But when COME and VENIR are followed by a complement PP, as in (338) and (339) below, this complement restricts the reference of the deictic center.

- (338) Good fortune will come to you if you are patient.
- (339) La bonne fortune viendra à toi si tu es patient.

Since the PP destination complement of COME/VENIR always specifies the reference of the end-relation between X and the deictic center, the NP complement of the preposition (you/toi) in these examples is taken to be co-referential with the deictic center o. Since this NP refers to a person, the PP is taken as expressing that the end state of the orientation is a relation with a specific person. Hence, the deictic center cannot receive the maximally general interpretation 'existence' (general accessibility to the experience of all SCs), and the end-relation cannot therefore be interpreted as the state of 'being in existence'. Rather, the deictic center is construed as accessibility to the experience of a specific SC, a single individual. The compositional meaning obtained in sentence (338) is schematized in (340).



The NP you tells us that the deictic center refers to some facet of the person you, and the subject refers to a phenomenon. In the case of an individual, the most general possible construal of 'a point that is accessible to a Subject of Consciousness' is as the experience of this individual. Consequently, the sentence expresses that 'good fortune is oriented toward being localized in the experience of the SC "you", further construable as: 'good fortune will occur and thereby become accessible to the experience of the SC 'you".

In the case of example (339) illustrating VENIR, the underspecified end relation R (general relatedness) yields the idea that the end state is one in which 'good fortune relates to the SC's ('your') experience'. The only obvious way to interpret 'phenomenon X relates to an SC's experience' is 'SC experiences phenomenon X'. We therefore obtain the same interpretation for sentence (339) with VENIR as for (338) with COME: 'good fortune will occur and thereby become accessible to the experience of the SC 'you'.

The 'individual experience' use being discussed here hinges on the idea that the deictic center refers to the experience of a specific individual. Although this idea can be provided directly via a PP complement, as in (338) and (339) above, it can also be obtained from other material in the discursive context or from background knowledge, as in (341) and (342). In these examples, instead of a complement, we find a modifier (at the cost of many lives, as a great relief) describing a consequence, an impact of the event X. As shown in these examples, we can explicitly identify the individuals affected by this consequence, but if this information is omitted, the notion of an affected individual or set of individuals can be inferred from the notion of consequence. And this notion of affected individual – whether expressed or implied

- is taken as identifying the SC in COME's meaning. Thus, we have sufficient information to generate an 'individual experience' situation⁷⁹.
 - (341) The diplomatic crisis came at the cost of many lives (at the cost of the lives of many innocent civilians).
 - (342) The decision came as a great relief (for everyone).

Given the highly general nature of the subject in the examples above (e.g. 'good fortune'), we interpret accessibility simply as 'the SC's experience'. But certain phenomena have properties such that they can become accessible to a person's experience only via one of the specific perceptual channels (sight, hearing, etc.). Thus, if world knowledge about the subject's referent strongly suggests experience via a single perceptual channel, we interpret the verb's 'accessibility' component as *perceptibility*⁸⁰.

- (343) The building came into sight. (sight)
- (344) La citadelle vint en vue. (sight)
- (345) The sounds of birds came to him through the window.(sound)
- (346) Le chant des oiseaux venait jusqu'à lui. (sound)
- (347) The smell of lilacs came to him from around the corner. (smell)
- (348) Les odeurs de la campagne venaient jusqu'à lui. (smell)

As examples (343) through (348) illustrate, this use is possible for sight, sound and smell. However, as examples (349) through (352) below show, the senses of touch and taste are less acceptable. This is because the orientation expressed by COME and VENIR implies a transition, a passage with internal development. While stimuli received via the senses of

⁷⁹ At present I am unable to account for the awkwardness of the French translations of these sentences: ?La crise diplomatique est venue au prix/coût des vies de civils innocents; ?La décision est venue comme un grand soulagement pour tout le monde.

⁸⁰ Cf Di Meola (1994, p. 97-100) and Viberg (2003, p. 88), who discuss 'access to perception' uses but consider them derived from space and motion (e.g. via the metaphor VISUAL FIELD IS A CONTAINER).

sight, hearing and smell fit these criteria (i.e. we receive visual, auditory and olfactory stimuli from objects at a distance and the transmission of these stimuli thus happens over time and space), those received via touch and taste do not: they require direct physical contact and thus are viewed as having no internal development, no passage toward a destination. However, these uses can be made acceptable if a source phrase is supplied, supporting a reading involving transmission over time and space and thus *internal development*, as shown in (353) through (356).

- (349) *An uncomfortable feeling came from the chair. (touch)
- (350) *Une sensation inconfortable venait de la chaise. (touch)
- (351) *A taste of ginger came (to him) from the cookies he was eating. (taste)
- (352) **Un goût du gingembre (lui) venait des biscuits qu'il mangeait.* (taste)
- (353) He could feel an intense heat that was coming from the bakery downstairs. (touch)
- (354) Il sentait une chaleur intense qui venait de la boulangerie en bas. (touch)
- (355) The taste of ginger in my pancakes comes from the ginger beer I use. (taste)⁸¹
- (356) Le goût du gingembre dans mes crêpes vient de la bière de gingembre que j'utilise. (taste)

Since events such as phone calls take place over a distance and are experienced through a sense, they too can be expressed via COME or VENIR.

- (357) The call came too late: John had already left.
- (358) L'appel est venu trop tard : Jean était déjà parti.

Humans can have perceptual experience of phenomena situated outside the self, as in the preceding examples, but they can also experience phenomena occurring within the self, such

⁸¹ Note that (355) and (356) fall on the border between a 'taste' reading and an 'origin' reading (see section 4.9).

as a physical ailment. Thus, when X refers to a physical ailment, as in (359) and (360) we once again construe the deictic center as 'accessibility to the perceptual experience of SC', yielding a sentence meaning 'SC experiences physical ailment X'.

- (359) Il lui est venu un gros mal de tête.
- (360) Il lui est venu une angine.

VENIR's orientation component, which implies internal development, leads to a constraint on the 'physical ailment' use: physical condition X's gradual passage into a state of perceptibility entails that X must not be a sudden ailment, as shown in (361), and that the development itself must be perceptible, as shown by the marginality of (362)⁸².

- (361) *Il lui est venu une crise cardiaque.
- (362) ?Il lui est venu une tumeur.

Since the phenomena in question are internal to the individual but not controlled by the individual nor by any identifiable entity, the subject must be impersonal IL, as shown by the unacceptability of (363) through (365). This follows from an observation made by Bouchard (1995, p. 250) and by Labelle (1989, p. 30, as cited by Bouchard), who point out that in general the impersonal construction can have the effect of "denying responsibility" for the event described by the verb. The physical ailment cannot be conceived of as responsible for its own coming into being, so the use of the impersonal is necessary.

⁸² This insight is due in part to Anita Thomas (personal communication). Note that example (362) is judged as fully acceptable in Bouchard (1995, p. 171). However, at least one of my informants rejected this sentence. As for the requirement of internal development for VENIR, see Bouchard (1995, p. 168-170) for an alternative analysis.

- (363) *Une tumeur lui est venue.
- (364) *Une angine m'est venue.
- (365) *Un gros mal de tête m'est venu.

Because VENIR contains no end localization and thus does not imply a source localization distinct from the SC, it can be used to describe such physical conditions originating inside the self, accounting for the acceptability of (359) and (360) above. In contrast, because COME's meaning specifies that the end state of the orientation is a relation of localization between X and the deictic center, COME implies that the *origin of the orientation* is a localization at some point that is distinct from the end-point. This notion of implied source, illustrated in the following, leads to the requirement that X have a starting point *outside* the SC. Consequently, COME cannot describe the development of a physical ailment (a development taking place exclusively within the SC), as shown in (367) through (370).

(366)
$$L(X, \omega) \xrightarrow{X} L(X, o)$$

- (367) *A big headache came to him.
- (368) *(A case of) tonsillitis came to him.
- (369) *A heart attack came to him.
- (370) *A tumor came to him.

Note that the contrast between these unacceptable English sentences and their acceptable French counterparts is not attributable to the presence or absence of the impersonal construction. Impersonal THERE, while quite compatible with other uses of COME (examples (371) through (373)), does not improve the acceptability of the 'physical ailment' use (examples (374) through (376)).

- (371) There comes a time in every man's life when he feels the need to reflect on his past accomplishments.
- (372) There came a day when Paul was tired of his job.
- (373) There came a man seeking help.
- (374) *There came (to him) a big headache.
- (375) *There came (to him) (a case of) tonsillitis.
- (376) *There came (to him) a tumor.

In addition, it might be suggested that the contrast between VENIR and COME concerning the 'physical ailment' is due to the existence in French of the dative clitic, which can be used to express inalienable entities (such as body parts), as in (377). However, this is clearly not the source of the contrast, for while certain physical ailments (example (379)) can be treated as inalienable, others cannot (examples (380) and (381)).

- (377) Jean lui a serré la main.
- (378) *John shook him the hand.
- (379) Le médecin lui a enlevé la tumeur.
- (380) *Ce médicament m'a guéri l'angine.
- (381) *Cette aspirine m'a soulagé le mal de tête.

When contextual information brings us to interpret the SC not as a person as a whole, but rather as a part of a person, it becomes possible to use not only VENIR but also COME to describe an internal phenomenon. For example, in (382) and (383), the physical symptom X consists of tears, a concrete entity that can undergo movement. The PP complement refers to a part of a person's body. Crucially, this part of the body is an organ responsible for (visual) perception, and thus a channel of perceptual experience (access). Thus, the deictic center is restricted in this case to the eyes, so we construe the rest of the body as lying outside the

deictic center⁸³. Since we conceive of tears as originating somewhere inside the body and *moving* to our eyes, where they become visible (or perceptible via tactile sensation) and thus accessible to the person himself or to an external observer, the extra-linguistic situation does not enter into contradiction with COME's implication that X originates outside the deictic center.

- (382) Les larmes lui viennent aux yeux.
- (383) Tears came to his eyes.

Although the phenomena discussed so far are experienced via perceptual channels, phenomena situated in the mental domain (mental entities such as thoughts, ideas, memories) are experienced directly via consciousness. Moreover, the mind can be subdivided into different parts. In particular, we can distinguish between mental entities that are currently accessible to our consciousness/awareness and those which are not. Thus, while the notion 'Subject of Consciousness' can be taken generally to refer to a conscious person (as a whole), it can also be construed narrowly as referring only to a person's consciousness itself. Accordingly, not only VENIR, but also COME, can be used to describe an event in which a mental entity X enters into a person's consciousness. In examples (384) and (385), X is oriented toward being accessible to an SC identified by a PP complement or a dative clitic. Since X is a mental entity, we infer that the accessibility is established via a purely mental channel: X ends up being *mentally* accessible to the SC construed narrowly as the person's consciousness. In other words, we obtain as a global meaning: 'SC experiences mental content X'.

⁸³ Cf Di Meola's (1994, p. 112-123) analysis that claims that in German and English, certain uses result from the deictic center being extended to apply exclusively to the mind (rather than the emotions and the body).

- (384) Il m'est venu une idée géniale. / Cette idée m'est venue hier.
- (385) An idea came to me. / This idea came to me yesterday.
- (386) J'avais de la difficulté à trouver la réponse, mais après beaucoup de réflexion, elle m'est enfin venue.
- (387) I a lot of difficulty finding the answer, but after much thought, it finally came to me.

One might object that the line of argument advanced here should also apply to physical ailments which can originate outside the self (e.g. tonsillitis, headache, etc.). But there is a crucial difference with respect to mental entities: when an idea is transmitted from outside the self, we conceive of it as being the same idea both at source and destination. When an illness is transmitted, the coming into being of the particular case of illness is conceived of as happening within the individual (regardless of whether the actual cause of the ailment lies outside the SC).

A final example of an 'individual experience' use of COME/VENIR involving an event internal to the self is the sexual sense (i.e. 'orgasm') attributable to sentences like (388) and (389) with the proper supporting situational context. Lamarche (1998) offers the following characterization of this use: "Dans cet emploi, la situation à laquelle renvoie l'expression n'implique pas plus d'une entité, [...] mais seulement celle à laquelle renvoie le sujet. Intuitivement, l'événement décrit n'implique que cette entité, le point culminant de cet événement étant identifié par un état spécifique du sujet" (p. 66). In terms of the present analysis, in this semantic use the person's consciousness itself is subdivided, and the verb is used to describe orientation of one part of this consciousness — the sensation itself — towards being accessible to the Subject of Consciousness construed narrowly as the experiencer of this sensation.

- (388) He/she came.
- (389) Il/elle est venu(e).

4.6 State-entering

In the present section I turn to a discussion of uses of COME and VENIR that describe an entity entering into a new state. I first describe the properties of this type of use that are common to these two verbs (section 4.6.1), and then I discuss the differences observed between them (section 4.6.2).

4.6.1 Account of shared properties

Recall what COME and VENIR have the following monosemous representations.

(390) COME:
$$X$$

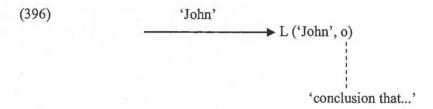
$$\longrightarrow L(X, o)$$
(391) VENIR: X

$$\longrightarrow R(X, o)$$

Thus, they have in common the idea that 'X is oriented toward being in a relation with o'. As seen above (see section 4.1), when the subject of COME or VENIR refers to a concrete entity and the complement refers to a physical location, both the orientation and the deictic center are construed spatially, and the result is a 'motion' reading. When the complement is a PP that, instead of referring to a location, refers to an abstract state, we still obtain a dynamic reading, i.e. one in which the orientation component is construed as 'change'. However, in this case the complement indicates that the deictic center is not to be construed spatially, but rather abstractly. Thus, the end-relation in COME's and VENIR's meaning is interpreted not as a physical localization, but rather as 'being in state S'. The following are typical examples of this type of use.

- (392) John came to the conclusion that Mary had been lying.
- (393) Jean en est venu à la conclusion que Marie lui avait menti.
- (394) The two political parties came to an agreement.
- (395) Les deux partis politiques en sont venus à une entente.

Consider the example (392) above. Taking into consideration the verb's invariant semantic content as well as the elements present in the sentence, we obtain the meaning schematized in (396), paraphrasable as 'John was oriented toward a being localized at the deictic center', this point being further identified as the mental state 'the conclusion that...'.



Recall that the deictic center contained in these representations is defined as 'a point that is accessible to a Subject of Consciousness', and that accessibility is an abstract, domain-independent notion that can be construed in a number of ways depending on situational and contextual factors. In the case of the 'motion' uses, given the nature of the elements involved, the deictic center is construed spatially: the subject's referent ends up being at the same physical location as the SC. But in the examples above, the deictic center cannot be construed spatially, since the complement indicates that the end state is an abstract one. Thus, the deictic center is interpreted instead as 'an abstract state that is accessible to the SC'. The Subject of Consciousness need not necessarily be the speaker: it can be virtually any animate entity capable of consciousness and made available by some element of the sentence, surrounding discourse, background knowledge, etc. (see section 3.2.2). In examples (392) through (395), since context does not favor any SC in particular, the interpretation is that the intended SC is any discourse participant (i.e. speaker and/or hearer).

The most general way for an abstract state of affairs to be accessible to the discourse participants is for it to be *mentally accessible* to them. Thus, sentences like (392) through (395) describe the subject's *entering into* this mentally accessible state. Moreover, a given

state S cannot be said to exist until some entity is in that state: when an entity X enters into S, it *actualizes* S. So in 'state-entering' sentences, X's entering into S causes S to become mentally accessible to the discourse participants, i.e. to enter into their *focus of attention*⁸⁴. Describing state S as becoming the focus of attention in turn implies that S has some significance in the context of the discourse⁸⁵.

In addition, the 'state-entering' use involves an end-state that is localization. In the case of COME, this is attributable to COME's intrinsic semantic content, and in the case of VENIR, it is attributable to the presence of À introducing the complement. As Vandeloise (1991, p. 160-168) points out, localization has the effect of emphasizing the asymmetry between figure and ground. Crucially, he also observes that one of the main properties of the ground is stability, and that conversely, a figure must normally be an element that is not fixed and stable but rather one that can be situated with respect to a stable entity (p. 21-24, p. 161-162). This explains the contrast illustrated in examples (397) through (400), where the nouns CONCLUSION and IDEA, while semantically quite similar, nonetheless yield opposite results when used as either the subject or the complement of COME. Since conclusions tend to be states of mind which we maintain over a certain amount of time once we have reached them, CONCLUSION denotes a stable entity and is thus an ideal ground. This stability makes it perfectly acceptable as the ground in the 'state-entering' use in (397) but odd in as the figure in (398) (an example of the 'individual experience' use, see section 4.5). Conversely, the noun IDEA, which does not strongly imply stability, is fine as the figure in the 'individual experience' use (399) but awkward as the ground in the 'state-entering' sentence (400).

⁸⁴ I owe this notion of entry into focus of attention to Di Meola (1994, 2003), Radden (1996) and Viberg (2003). Note, however, that their analyses consider senses involving this notion to be derived from 'motion' via the internally complex concept 'zone of interactive focus' (see 3.2.2).

⁸⁵ Note, however, that the verb's deictic content can be construed differently when the PP itself expresses a particular type of accessibility. This is the case in expressions like *come into being/existence* (where the complement forces construal of the deictic center as 'existence') and *come to consciousness* (in which transition from unconsciousness to consciousness results a person's becoming accessible to the SC via the potential for interaction, communication, etc.).

- (397) I came to the conclusion that...
- (398) ?I came to the idea that...
- (399) An idea came to me.
- (400) ?A conclusion came to me...

The specific nature of the end-state is determined by the nature of the element referred to by the PP complement. Thus, while examples (392) and (393) above describe a person's ending up possessing a certain mental content (i.e. 'conclusion that...'), in (401) and (402) the PP refers to a topic of discussion, so we obtain a 'shift of attention' reading. Once again, given the deictic center's construal as 'a state that is significant to discourse', these sentences have the effect of placing focus on the state described by the PP and thus of depicting the latter as significant for subsequent discourse.

- (401) To come to the main topic of our discussion, I would now like to address the tuition hike.
- (402) Vous feriez mieux d'en venir tout de suite au sujet qui vous amène ici.

In the examples discussed so far, the complement consists of a localizing preposition – TO or \dot{A} – introducing a state NP. But since TO and \dot{A} can also take an infinitive verb as a complement, and since a verb can describe a state, COME and VENIR can also be used to express 'state-entering' with a TO/ \dot{A} -INF complement, as in the following.

- (403) He had come to realize that she could not be trusted.
- (404) J'en suis venu maintenant à regarder le monde comme un spectacle et à en rire. (Flaubert, cited in the Grand Robert de la langue française)
- (405) If we now come to consider the disadvantages of this policy...
- (406) Nous en venons maintenant à considérer les désavantages de cette politique...

Moreover, although the examples discussed above contain animate subjects, the 'state-entering' use is by no means restricted to such subjects, as (407) and (408) show. This is because virtually any entity can undergo a change to a new state.

- (407) This neighborhood has come to resemble a city dump.
- (408) Ce quartier en est venu à ressembler à un dépotoir.

Having shown in this subsection that COME and VENIR, which have similar semantic content, both behave similarly in their 'state-entering' uses, I turn in the following subsection to a discussion of the differences they manifest for this type of semantic use.

4.6.2 Account of differences

COME and VENIR differ in the type of end-relation they express: VENIR's end-relation is the maximally general relation R, while COME'S end-relation is the more specific relation 'localization' (=L). As pointed out above, this does not prevent VENIR from being able to express 'state-entering', since the preposition À provides the notion of localization required to obtain this reading. However, the absence of localization in VENIR's semantic content does have an impact on the specific properties of 'state-entering' in French.

To illustrate this, consider the following examples repeated from above. If we omit the element EN from the French sentence to obtain a sentence that is structurally equivalent to the English example, the result is unacceptability, as shown in (411). The same observation holds for all of the 'state-entering' examples of VENIR given so far.

- (409) John came to the conclusion that Mary had been lying.
- (410) Jean en est venu à la conclusion que Marie lui avait menti.
- (411) ?Jean est venu à la conclusion que Marie lui avait menti.

This obligatory presence of EN is due to the absence of localization in VENIR's semantics. As shown elsewhere, because COME's meaning contains an end-relation that is localization at a point, it implies that the initial relation was also localization at a point. COME's meaning thus supports the idea of a transition from one state to another. Because VENIR's meaning does not indicate that the end-relation is one of localization, this verb's meaning does not support the inference of a source localization. Furthermore, as pointed out by Talmy (2000), in satellite-framing languages like French, the verb is responsible for carrying crucial information about path (in my terms, information about orientation). I therefore assume that

in satellite-framing languages, inferences about elements such as source of orientation can only be made based on the semantics of the verb itself. Hence, despite the presence the destination localizer À in sentences like (411), no source localization can be inferred.

Crucially, if we assume that the notion of being in a state observed in this type of semantic use is derived from the general notion of localization, then it follows that VENIR's meaning lacks the necessary content to support the inference of an initial state. Thus, in order for us to obtain a change-of-state situation, the notion of source localization must be supplied by a lexical element other than the verb. The pronoun EN has the property of being able to refer to a general, unnamed but discursively available state of affairs. Thus, this maximally general localizing element (which corresponds roughly to DE + LE) is used to fulfill this function in sentences like (410) above.

Although the source of the orientation (and hence the notion of initial state) is obtained differently for the two verbs (via inference from the end-relation in the case of COME and via the explicit element EN in the case of VENIR), in both cases the precise nature of this source remains unspecified. Given that in the 'state-entering' use the end-state is portrayed as mentally accessible to the SC, we infer that the beginning state is mentally *inaccessible*. Crucially, since cause is associated with beginning state (i.e. the agent that brought about the change acted on the entity at the time of the initial state), the cause behind the event is treated as inaccessible as well. That is, the original impetus of the change is depicted as inaccessible to the Subject of Consciousness. This further leads to the assumption that the subject's referent was not fully in control of the process, that it was not the sole cause or even the primary cause of the change. As a result, the process is presented as at least partly determined by an unnamed set of external circumstances⁸⁶. This implied external influence is present in the 'state-entering' examples discussed above. For example, in (392) and (393), it is implied

⁸⁶ See Di Meola (2003, p. 55-56) on how external influence can be inferred in a movement context: "if we focus on the GOAL, the fact of reaching it must be relevant (non-obvious); therefore an external force must have influenced the movement (hindering the trajector, pushing him/her towards an unforeseen GOAL, transporting him/her towards the GOAL)".

that John/Jean's ending up with the belief in question is the result of a series of unnamed experiences. This implication of an external influence is subtler but nonetheless present in (401) and (402); in these sentence the implied external circumstances take the form of an obstacle – an abundance of topics to discuss – potentially hindering arrival at the topic in question. This effect is lost if we replace COME with a different verb (e.g. To address the main topic of our discussion, ...).

Because the notion of source is provided differently for the two verbs, they do not behave identically in terms of the kinds of transitions they can describe. In the case of VENIR, we can reasonably assume that expressing source on the separate lexical element EN has the effect of *foregrounding* this source and thus emphasizing the idea of contingency on a set of external circumstances that channel X's development toward the end state. As a result, VENIR is more restricted than COME in the types of changes it can describe: it is incompatible with situations where external factors play a minimal role or no role at all in determining the change. This observation accounts for the absence of two sub-uses of 'state-entering' for VENIR: 'total amount' and 'location-reaching'. I will now discuss each of these sub-uses in turn.

COME can be used to express a 'total amount' sense, that is, a situation involving the result of an arithmetic operation, as in (412). As mentioned above, 'state-entering' uses involve a state that is reached after a preceding development, and this state is depicted as becoming mentally accessible to the Subject of Consciousness. As in the other 'state-entering' uses, sentence (412) expresses that the subject's referent is oriented toward a relation identified by a prepositional phrase. More specifically, the subject *your bill* is oriented toward being anchored at an end state that is identified by the PP to 25 dollars as an amount. This is schematized in (413).

(412) Your bill comes to 25 dollars.
(413)

'your bill'

L('your bill', '25 dollars')

Given our knowledge of the entities involved – a bill on the one hand and an amount on the other – and our knowledge of how such entities can relate to each other in the real world, we infer that the change of state referred to by the orientation is an arithmetic operation. Moreover, because the end-relation of the orientation is one of localization, which supplies the notion of end-state when orientation is construed as a process, the amount is construed as the result of this calculation. We thus obtain the interpretation: 'Your bill is oriented via an arithmetic operation (e.g. addition) toward the end result of the amount 25 dollars'. That is, 'the total of your bill is 25 dollars'.

As stated above, because VENIR does not contain localization as an intrinsic end-relation, this verb does not support the implication of source localization required to obtain the notion of an initial state. Hence, sentence (414) below is unacceptable. Moreover, as seen above, if we include EN in order to express this missing notion of source localization, this has the effect of emphasizing the influence of external factors on the outcome of the process. However, world knowledge tells us that the result of a given mathematical calculation is not contingent on factors external to the calculation itself. That is, the fact that a restaurant bill for an item of 12 dollars and an item of 13 dollars *comes to* a total of 25 dollars is inevitable and is in no way contingent on circumstances such as the volition of the person performing the calculation. Thus, the 'total amount' use is equally unacceptable when EN is used, as shown in (415). In the case of COME, this problem does not arise: source localization is not supplied by a separate lexical element but rather inferred from the verb's intrinsic content. This notion of external influence is thus defeasible in the case of COME, so the 'amount' use is acceptable for this verb.

- (414) *Le compte de taxes vient à 100 dollars.
- (415) *Le compte de taxes en vient à 100 dollars.

The preceding discussion also allows us to account for another difference between COME and VENIR with respect to 'state-entering': only COME can be used to express 'location-reaching' as in (416). In the 'motion' uses described in section 4.1, the deictic center is interpreted as 'the location of an SC', and the orientation is thus interpreted as a motion toward this SC's location. However, in (416) the indefinite article presents the bridge as

discursively new/unknown, so it cannot be the SC's (e.g. speaker's/hearer's/protagonist's) location. Thus, a prototypical 'motion' construal is ruled out.

(416) After walking for hours, the weary hikers came to a bridge.

Crucially, being physically located at a point in space is a type of state, and this state can become *mentally* accessible to the SC by entering his attention. Thus, since the deictic center in (416) cannot be construed concretely, it is interpreted abstractly as 'mental accessibility' as in the state-entering uses: the sentence describes the hikers entering a state ('being at a bridge') that becomes mentally accessible to the SC (in this case, one of the discourse participants) by entering his attention. This focusing of attention depicts the new state as having significance for the discourse. Thus, the 'location-reaching' use often appears in a story context, and the location reached by the subject's referent ends up having some kind of significance for later events, serving as the setting for upcoming action⁸⁷.

As in the other 'state-entering' uses, the implied source localization (based on COME's intrinsic end-localization component) has the effect of suggesting that the state-entering event was influenced by factors external to the entity undergoing the change, i.e. the subject's referent. As pointed out by Di Meola (2003), in the context of a movement through space, influence of external factors over a motion event can take the form of circumstances directing a person toward a location (as in the case of accidental, unintentional arrival at a location) or the form of obstacles impeding the reaching of a desired destination. The former case ('accidental arrival') is exemplified by (416) above, in which the indefinite pronoun suggests that the location is new and unknown to the characters of the narrative, and the latter case ('arrival despite obstacles') is illustrated in (417), in which the definite article depicts the bridge as a discursively available, known location, and hence as the characters' intended destination. In this case, since X ends up at an intended destination while being influenced by external circumstances, the most natural inference is that these circumstances hindered X's

⁸⁷ For an alternative account of this semantic use (which they call 'salient location'), see Antonopoulou and Nikiforidou's (2002) discussion of Greek ERXOME 'come'.

arrival. Note that the definite article in *the bridge* makes the sentence also compatible with COME's prototypical 'motion' reading (see section 4.1), so the sentence is ambiguous without further context.

(417) After hours of walking, the weary hikers finally came to the bridge.

Since VENIR's intrinsic meaning does not support the implication of an initial state necessary to bring about a 'state-entering' reading, the 'location-reaching' use is impossible for this verb, as shown by the unacceptability of (418). Moreover, the addition of EN not only provides source localization but also foregrounds the role played by external circumstances in bringing about the state-entering event. While this is compatible with abstract processes like decision-making (Il en est venu à la conclusion/décision...), world knowledge about locomotion indicates that the latter is determined in large part by the subject's volition. That is, in (416), even though the hikers' arrival is accidental or unexpected, the hikers are still the principle cause of their own movement to that location. Thus, the emphasis on external causal factors brought about by the inclusion of EN in the sentence is incompatible with 'location-reaching', resulting in the unacceptability observed in (419).

- (418) *Après des heures de marche, les randonneurs sont venus à un pont.
- (419) *Après des heures de marche, les randonneurs en sont venus à un pont.

A final difference in the behavior of COME and VENIR with respect to 'state-entering' uses involves the expression of a hypothetical event. As noted above, situations of abstract state-entering can be expressed by VENIR as long as the element EN is present to supply the necessary notion of source, and as long as the situation being described is compatible with the semantic effects (i.e. foregrounding of external influence) that EN brings with it. However, there is one specific 'state-entering' use – the 'hypothetical event' use illustrated in (420) and (421) – which allows the omission of EN.

- (420) Si Jean **en** venait à perdre son emploi, la famille n'aurait aucune source de revenu.
- (421) Si Jean venait à perdre son emploi, la famille n'aurait aucune source de revenu.

In these examples, SI (together with the imperfect tense in the SI-clause and the conditional in the main clause) indicates that the situation is a hypothetical one. Predictably, inclusion of EN in (420) expresses source and thus depicts the event as having a known cause. In contrast, omission of EN, as in (421), depicts the event as having no known cause, i.e. as being fortuitous. Crucially, this absence of a known cause, while unacceptable elsewhere, is compatible with the semantics of a SI + imparfait + conditional counterfactual sentence, for the irrealis presents the event 'Jean loses his job' as belonging not to the real world but to a possible world, hence attenuating the requirement of a known cause.

Conversely, since COME's meaning implies an identifiable source behind the event, there is a slight clash with the notion of fortuitousness suggested by the hypothetical construction. Thus, a 'hypothetical event' use is slightly awkward in sentences like in (422). However, in sentences like (423), the presence of the phrase by chance presents chance itself (i.e. absence of cause) as a known cause, and the conflict with the 'known cause' implication following from COME's semantics is resolved.

- (422) ?If John came to lose his job, the family would have no source of income.
- (423) If by chance we come to meet our friends during our trip, we can tell them the news.

In summary, both COME and VENIR can be used to express 'state-entering' when followed by a PP complement referring to an element construable as a state. When this happens, the deictic center is interpreted abstractly as 'an element that is mentally accessible to the SCs involved in the discourse', and this suggests that the end-state of the change has special significance for ensuing events in the discourse. Because COME implies a source and thus a cause, COME's 'state-entering' uses weakly imply that the event is influenced by external factors. In contrast, because VENIR's meaning does not imply a source and thus does not imply a cause, when it is not used to describe a fortuitous event (in a SI + imparfait + conditional sentence) it must be accompanied by EN. In the latter case, because cause is

expressed by an explicit lexical element rather than implied, the notion of external cause is foregrounded, making VENIR incompatible with changes determined primarily by the entity undergoing the change itself.

4.7 COME + ADJ

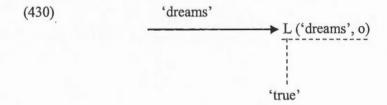
We saw in the preceding section that when COME is combined with a PP describing a state, the result is a sentence expressing the entering of a state. Since adjectives, like PPs, express states and properties, an adjective can be used with COME to express the entering of a state, as in the following.

- (424) Your dreams will come true.
- (425) The figures in the painting came alive.
- (426) The screw on the refrigerator came loose.
- (427) The shoes came untied.
- (428) The piece came unglued.

In these sentences, the verb expresses that the subject is oriented toward being in a localization relation with the point o. The adjective expresses a property or state (e.g. 'true', 'alive', 'loose', 'untied', etc.). Unlike adverbs, adjectives cannot be applied to a verb's meaning as a modifier, so when an adjective is adjoined to the verb COME, we interpret it not as qualifying the COME-event, but rather as identifying the content of some subpart of this verb's meaning. At first glance, it appears possible that the adjective's meaning identifies (i.e. links to) the deictic center o, specifying its content as in the following representation.

This is in fact impossible, however, because o is a point, and adjectives, qua elements expressing properties and relations, are inherently non-punctual. Rather, as an element

intrinsically expressing a property or state (rather than a punctual element like an entity), an ADJ can only be taken as specifying the content of a predicative element of COME's meaning. Thus, just like a PP complement, an ADJ complement of COME is interpreted as identifying the content of the end relation L, as in the representation (430) below. Thus, in sentences (424) through (428) above, the ADJ is interpreted as indicating how X is anchored at 0 at the end of the orientation. Thus, for examples (424) and (425), we obtain the following respective compositional meanings: 'Her dreams were oriented toward having the property of being true'; 'The screw was oriented toward having the property of being loose'. Since the ADJ expresses a property or state, the sentence describes a change of state.



Hence, in these sentences, the ADJ tells us how X is anchored at o at the end of the change. More specifically, since the deictic center is 'a point that is accessible to a Subject of Consciousness', the above sentences describe a change toward being anchored at some point that is accessible to an SC. The specific way in which this accessibility is accomplished – and hence the specific way we construe the deictic center – is filled in by our world knowledge about the state involved. For example, in (424) above, the sentence states that dreams end up anchored at o by having the property of being true (with the implication that the initial state was one of mere potentiality). Things that become true are considered to be part of existence, and as we saw above, existence is one way of being accessible to SCs in general. Hence, in (424) the deictic center is construed as 'existence'. Similarly, in (425) the ADJ ALIVE indicates that the subject's referent ('the figures in the painting') ends up being anchored at o

⁸⁸ Although the ADJ in this construction is not "selected" by the verb, I consider it a complement on a par with a PP insofar as it identifies (i.e. links to) a subpart of the verb's meaning.

via the property of being alive, a property that once again favors interpretation of the transition as one from a state of potentiality (or fictiveness) to a state of existence⁸⁹.

But accessibility can be achieved in more than one way. Aside from accessibility to one's experience (established, e.g, via existence), another general way for a person to have access to something is to exercise a certain *control* over it. In the domain of space, one way to have potential control over an object to be able to manipulate it, to cause it to move. Consequently, a concrete part of an object can become accessible via *mobility/detachment*: by leaving a state of fixedness and thus becoming detached and mobile, an object enters a state of potential manipulability by a person. This is what we find in examples (424) through (428) above: adjectives of disunion like LOOSE, UNTIED or UNGLUED describe a state of concrete mobility whose establishment brings an object not into existence but rather into the realm of potential manipulability by people in general. In such cases, the accessibility expressed by the deictic center is interpreted as mobility.

As seen in the preceding section, the possibility of deriving a situation of 'transition' or 'change of state' from COME's intrinsic meaning hinges on the notion of anchoring at an end-point, the latter being provided by COME's localization component. As we saw above, since À expresses localization, VENIR can be used to express change of state when it is followed by a (noun or verb) complement introduced by À, as in (431) below. But an adjective cannot be the complement of a preposition (as shown in (432)). Consequently, when an adjective is combined with VENIR as in (433) through (436), since no element is present to express the needed notion of localization, we cannot obtain a 'change of state' reading, and the sentence is unacceptable⁹⁰.

⁸⁹ Note that this use does indeed involve the notion 'existence' and not the idea of X's ending up corresponding to the SC's desires, as is evidenced by the acceptability of *Mary's nightmares came true*.

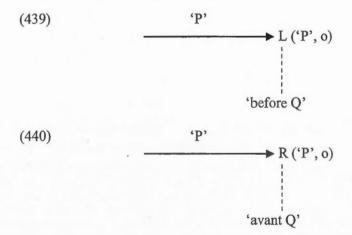
⁹⁰ In informal Quebec French it is possible (at least for some speakers) to use VENIR + ADJ to describe a sudden change of state in a person: *Je suis venu tout mal quand elle m'a posé cette question délicate*. However, given the limits of the present study, which deals only with Standard French, I exclude this regional use from my analysis.

- (431) Jean en est venu à la conclusion que.../à croire que...
- (432) *Ses rêves sont venus à vrai(s).
- (433) *Ses rêves sont venus vrais.
- (434) *Les figures dans le tableau venaient/sont venues vivantes.
- (435) *Les chaussures sont venues détachées.
- (436) *La corde est venue desserrée.

4.8 Order

In this section I discuss how COME and VENIR are used to describe the notion of 'order' or 'sequence'. When the orientation in the meaning of COME and VENIR is interpreted statically rather than dynamically and in the mental domain, these verbs can express an *ordering* of elements, as in (437) and (438). Given the elements present in the sentence and the intrinsic semantics of COME and VENIR, the semantic representations obtained for these sentences are shown in (439) and (440), respectively.

- (437) P comes before Q in the alphabet.
- (438) P vient avant Q dans l'alphabet.



In these examples, the generic present tense of COME/VENIR indicates that the overall relation expressed by the verb holds at all times. Hence, just as in the 'static spatial

extension' use, we obtain the idea that COME/VENIR's orientation is a stable, atemporal property, not a dynamic event. Because the tense is generic, and because the reference of the deictic center is not specified by any explicit lexical element, the deictic center is also interpreted generically as referring to an element that is accessible to SCs in general. The arguments present in the sentence (the letters P and Q) refer to abstract elements. We thus conclude that the orientation itself is to be interpreted abstractly. Moreover, the element BEFORE supplies the notion of a relation of 'order', a type of oriented relation between points; we thus construe COME/VENIR's orientation as 'order'. Finally, the arguments involved in the sentence refer to mental entities, so the end relation of the orientation is construed as *mental accessibility* to SCs in general. Thus, the global compositional meaning obtained for the sentences can be paraphrased as follows: 'When any given SC thinks about (i.e. mentally accesses) elements of type X and Y, the SC views these elements as being ordered such that X is before Y'.

Note that the difference in meaning between COME and VENIR – i.e. the nature of the endrelation – has no impact on the verbs' ability to express this sense, for all that is required to
obtain this reading is that the end state be construable as mental accessibility to a generic SC.

In the case of COME, the end relation is localization with the deictic center, and thus
localization in the SC's consciousness. An abstract element's being *localized* in our
consciousness is equivalent to this element being part of our consciousness. On the other
hand, when VENIR is used, the end relation is the more general 'X relates to o'. The only
logical, salient way to interpret the idea that 'abstract element X relates to the SC's
consciousness' is once again that X is part of the SC's consciousness. Thus, both verbs have
the necessary content to lead us to an 'order' interpretation based on contextual and
background knowledge.

One specific notion involving order is the hierarchical relation of priority. COME and VENIR can therefore be used to express a situation of priority, as in (441) through (444). In (441) and (442), the notion of priority is mentioned explicitly. In (443) and (444), it is obtained via our knowledge of the entities involved in the situation. The word BEFORE/AVANT once again establishes a relation of order between the arguments education and national defense, which are treated here as concepts. Our world knowledge

indicates that concepts such as these typically constitute important issues in the context of politics. From this extra-linguistic notion of importance and from the ordered list effect obtained via COME's and VENIR's semantics, we infer that the list involved here is a hierarchy of priorities. The preposition BEFORE/AVANT indicates the relative order of the two elements within this hierarchy. Finally, we interpret the sentence based on a convention involving hierarchies: in a list intended to indicate the importance of elements, the most important element is listed first, and so on (rather than the opposite order, which is logically possible but not allowed by convention). Thus, for example, in (441) COME's orientation and BEFORE's semantics indicate that 'freedom' is the first element in the list, and thus has greater importance than elements lower on the list such as 'material comfort'.

- (441) Freedom comes well before material comfort in my priorities.
- (442) La liberté vient bien avant le confort matériel dans mes priorités.
- (443) (For me,) education comes before national defense.
- (444) (Pour moi,) l'éducation vient avant la défense nationale.

Another type of situation involving a hierarchical relation is that of a contest. Thus, COME and VENIR can also be used with a 'rank in a contest' sense, as in (445) and (446). In this case, contextual information supplied by elements like among sixty contestants, in the race, candidat, and votes informs us of the nature of the hierarchy: rather than a hierarchy of priorities (as in the examples above), it is a hierarchy of positions resulting from a competition such as a sports event (445) or an election (446). Once again, by convention, in a list of contestants the first position is occupied by the person who obtains the highest score or who remains last after all other are eliminated. Hence, (445) expresses that the referent of SHE is second on the ordered list and thus has the second best performance among the contestants.

- (445) She came in second place among sixty contestants.
- (446) À la fin du premier tour, notre candidat préféré venait en 5e position avec 12% des votes. (Corpus)

A related use is the 'classification' sense illustrated in (447) below. This use is possible for COME (perhaps only in a slightly formal register) but not possible for VENIR. As with the 'order' uses discussed above, this reading is based on the notion of 'mental accessibility'. However, here the context does not suggest 'order'. Rather, the complement within the terms of the treaty specifies the nature of the end relation as containment. Thus, we obtain that 'the conflict', treated here as a concept, is oriented toward a containment relation with a treaty. Since a treaty is an abstract element, a mental entity, COME's orientation component is construed abstractly, and the end relation in COME's meaning is construed as mental accessibility to a generic SC. The sentence can thus be paraphrased as follows: 'This conflict has the property of being oriented toward being contained in the terms of the treaty, this treaty being mentally accessible to (in this case, known to) a generic SC'.

- (447) This conflict comes within the terms of the treaty.
- (448) *Ce conflit vient dans/à l'intérieur/en dedans des termes du traité.

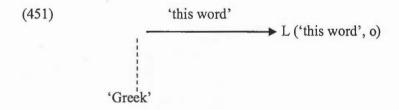
Crucially, this 'classification' sense presupposes a prior grounding at an origin point. That is, an entity which originates *outside* the classification is placed *inside* the classification, making it accessible to the SC, whose perspective is associated with the containing entity itself. Since the semantic content of VENIR does not imply a source localization, this use is not possible for VENIR, as shown in (448).

4.9 Origin

In this section I discuss another type of abstract use of COME and VENIR: the expression of 'origin' exemplified by (449) and (450).

- (449) This word comes from Greek.
- (450) Ce mot vient du grec.

Given the invariant semantic content of COME, taking into account the elements present in (449), we obtain the semantic representation given in (451). As for (450), the representation obtained is the same, except that the end relation is R rather than L.



As with the 'order' uses examined above (section 4.8), the generic present tense leads us to interpret these sentences as expressing permanent, atemporal properties rather than events. Thus, 'this word' has the property of being permanently oriented toward a relation with the deictic center. We have seen that when context does not suggest a specific construal of the deictic center, it can receive the maximally general construal 'existence', since 'being in existence' is the maximally general way to be accessible to all SCs. Based on this construal, in (449) the grammatical subject's referent is oriented toward being in existence. My analysis of 'origin' thus differs somewhat from that of Bouchard (1995), who argues that for VENIR, "[t]he moment of utterance [...] is anchored in the self of the speaker crucially viewed as a self in a set of all selves" (p. 137), and for whom the 'origin' use of VENIR therefore results from the idea of a permanent orientation of the subject's referent toward 'me' taken as the representative of the set of all selves. If we replace the traditional 'me-here-now' characterization of the deictic center with the notion of 'accessibility to an SC', this allows us to account for the highly general nature of the deixis in the 'origin' use without needing to postulate a mechanism whereby the speaker is extended represent the set of all selves. Given the highly general nature of the notion 'Subject of Consciousness' (a notion not anchored in a specific utterance participant like the speaker), the idea of 'orientation toward existence' follows in a straightforward manner from the general meaning 'orientation toward accessibility to any SC'.

Since the semantic content of COME and VENIR contain a specification of the destination of the orientation but not of its source, they require a phrase introduced by FROM or DE in order to express origin (Bouchard, 1995, p. 122). This contribution of the DE/FROM-phrase to the overall meaning of the sentence is illustrated in (451) above. For sentences (449) and (450), we thus obtain the following interpretation: 'this word has a permanent orientation toward existence, and the source of this orientation is the Greek language'.

The type of 'origin' being expressed varies depending on the nature of the subject and the nature of the element referred to by the DE/FROM-complement. The examples above illustrate the 'etymology/derivation' use, which applies when the subject refers to a linguistic unit such as a word. When the subject is a human being, there are two basic possibilities, for we conceive of humans as possessing two main types of origins. These two possibilities yield the 'family descent' and 'geographical origin' senses illustrated in the following.

- (452) John comes from a good family.
- (453) Jean vient d'une bonne famille.
- (454) This man comes from Italy.
- (455) Cet homme vient d'Italie.

In (452) and (453), the FROM/DE-phrase identifies the source as being a family, and this leads us to construe COME's/VENIR's abstract orientation as a relation of genealogy. In (454) and (455), the FROM/DE-phrase indicates that the source of the orientation is the geographic entity 'Italy'. In other words, *this man* has the permanent property of having Italy as his origin⁹¹. Given our extra-linguistic knowledge about the way in which humans typically establish a relation of origin with geographical entities like countries (either by being born in the country or by residing there for a long period of time), we obtain: 'This man was born (or has resided for a long time) in Italy'. In other words, 'This man is Italian'.

⁹¹ Note that in a narrative, the English simple past and the French imparfait, which are the past-tense counterparts of the generic present, are also acceptable with this use: *John came from a good family; Jean venait d'une bonne famille*.

Inanimate entities can also be ascribed the property of geographic origin in our conception of the world, and this accounts for the examples in (456) and (457). Finally, since the most natural way to interpret 'origin' in the case of an abstract element is in terms of cause, orientation takes the form of 'abstract origin/causation' in (458) through (465).

- (456) This wine comes from Italy.
- (457) Ce vin vient d'Italie.
- (458) This idea comes from Plato.
- (459) Cette idée vient de Platon.
- (460) His sadness comes from the circumstances.
- (461) Sa tristesse vient des circonstances.
- (462) Kind deeds come from a kind heart. (Webster's Third New International)
- (463) Les grandes pensées viennent du cœur. (Vauvenargues)
- (464) Many mistakes come from carelessness.
- (465) Beaucoup d'erreurs viennent de la négligence.

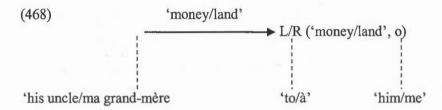
4.10 Possession

One way for a person to have access to an entity is to exercise a certain *control* over it, and one particular form of control is the relation of *possession*. Thus, one way for an entity to establish a relation of accessibility with the SC is to enter into the possession of the latter⁹². In the sentences (466) and (467), the subject of COME or VENIR refers to an inanimate entity (a sum of money in (466), a piece of real estate in (467)), and there is a complement (a TO-phrase in (466) and dative ME in (467)) describing a relation to a person. Combining these

⁹² Cf Di Meola's (1994, p. 101-103) discussion of the 'possession/control' uses of KOMMEN and GEHEN, which he considers to be meanings derivationally linked to the prototypical motion uses via the concept 'region of interactive focus'.

elements with the semantic representation of COME, we obtain the compositional meaning schematized in (468).

- (466) Several thousand dollars came to him from his uncle.
- (467) J'ai même dû vendre, l'an dernier, un domaine de cent soixante hectares, la Michouille, qui me venait de ma grand-mère maternelle. (Romains, cited in the Trésor de la langue française)



Thus, the sentences express that an inanimate entity (money, land) is oriented toward being in a relation (localization, general relatedness) with the deictic center, this relation being specified as involving a person. According to world knowledge, entities such as money and land are typically in a relation of *possession* with people, and possession is a type of accessibility. The orientation toward this relation therefore is interpreted as indicating that the entity enters into a relation of possession with the person (i.e. begins to *belong to* the latter). Finally, the FROM/DE-phrase supplies the notion of source, thereby indicating the identity of the previous possessor of the entity. In the present sentences, contextual information indicates that the transfer of possession occurs within a family, and based on our world knowledge about how possessions are transferred within a family, we obtain a specific 'inheritance' reading.

When the verb is in a generic tense, the orientation is taken to refer to a stable property rather than to a transfer. Thus, in (469) and (470), in which a FROM/DE-phrase once again indicates the identity of the source person, we obtain a reading that is similar to the 'origin' uses discussed above (section 4.9).

- (469) Most of his money comes from investments.
- (470) La plupart de son argent vient de ses investissements.

People can establish a relation of possession not only with concrete entities, but also with abstract elements such as qualities and abilities. Thus, COME and VENIR can be used to describe the beginning of the possession of an abstract quality, as in (471) and (472), or an ability, as in (473) and (474). Note that in the latter two examples, the tense is generic, yielding the same effect as for (469) and (470) above: the orientation is construed as a stable, atemporal property rather than as an event of acquisition. The sentences thus express that at all times (or at least habitually), the talents of writing, painting, humor, etc. are oriented toward being possessed by the person; she has permanent access to these talents⁹³. Because these sentences involve an abstract subject and a destination complement referring to a person, the sense is quite close to the 'individual experience' uses of COME and VENIR (see section 4.5). The difference here is that the subject denotes a quality or ability rather than an event, and the end relation is thus one of possession rather than one of experience. Note that in the case of both types of uses, the absence of a source expression poses no problem for VENIR's ability to express these senses. This is because when the subject is an abstract element such as an event, a quality or an ability, no transfer is involved, so these uses do not require the notion of source localization on which transition readings depend⁹⁴.

⁹³ Note once again that the English simple past and the French imparfait, which can function as past tense equivalents of the generic present in a narrative setting, are acceptable in this use: Writing came naturally to her; L'écriture lui venait naturellement.

⁹⁴ When, instead of a general talent, the situation involves an ability to accomplish some punctual action on a specific occasion, COME appears acceptable, while VENIR is awkward: *It comes hard for me to accept your views* vs. ??Il/Cela me vient difficilement d'accepter vos opinions. At present I am not able to explain this difference.

- (471) The spirit of true humility comes to those who seek it diligently. (Webster's Third New International)
- (472) La vraie humilité vient à ceux qui la cherchent activement.
- (473) Writing/painting/humor comes naturally to her.
- (474) L'écriture/La peinture/L'humour lui vient naturellement.

Finally, when COME is used in the progressive as in (475) and (476), it can describe a situation of 'owing'. Once again, background knowledge about the entities involved (money, credit, etc.) supports a construal of the end state as one of possession. The present progressive serves to situate not an entire event, but rather a part of the event, at the time of utterance. Hence, in these sentences it situates part of the orientation at 'now', such that the end relation has not yet been realized at the time of utterance. We thus infer that the event of acquisition is situated in the future. Other elements of the context (e.g. I have..., you will get...) lead us to the notion that the relation of possession is one that is meant to happen. From this we infer that the entity in question is owed to the person. Because this sense involves transfer of possession, it relies on the verb's ability to imply source localization. This, as we have seen, is not possible for VENIR given this verb's intrinsic content, and as a result, VENIR cannot be used to express a situation of 'owing'95.

⁹⁵ However, replacing VENIR with REVENIR makes these uses fully acceptable: Je ne réclame que l'argent qui me revient; Tu auras tout le crédit qui te revient. This is presumably because the semantic content of REVENIR, in particular the aspectual content of the prefix RE-, compensates for the missing notion 'source'.

- (475) I have another dollar coming to me.
- (476) You will get all the credit that is coming to you.
- (477) *J'ai un autre dollar qui me vient.
- (478) *Tu auras tout le crédit qui te vient.

4.11 Existence with a property

In this section I look at uses involving the notion of 'existence with a property'. These uses emerge when 1) the subject (X) refers to an entity, 2) the verb is in a generic tense, and 3) the verb is followed by a modifier describing a property of X. General examples of this use appear in the following sentences.

- (479) Cats come in many shapes and sizes. (Longman)
- (480) They don't come any tougher than my brother.
- (481) My brother is as tough as they come.

In these sentences, due to the use of the generic present and the absence of a complement specifying the reference of the deictic center, the Subject of Consciousness is interpreted generically as 'all SCs', and the deictic center itself receives a maximally general construal as 'accessibility to the experience of all SCs', i.e. 'existence'. Thus, these sentences describe a situation in which X is oriented toward existing and hence toward being accessible to the potential experience of any SC. The compositional meaning obtained for sentence (479) is represented schematically as follows, where the meaning of the modifying phrase *in many shapes and sizes* applies to the meaning 'cats'.

The generic present brings us to interpret the orientation as describing a lasting, atemporal property (see Bouchard, 1995, p. 137). Thus, for (479) we obtain: 'cats in general are

accessible to the experience of any Subject of Consciousness with the property of varying in shape and size'. In other words, 'cats exist in different shapes and sizes'.

Note, however, that due to extra-linguistic knowledge, example (479) is ambiguous between this general 'existence with a property' reading and an 'availability for purchase' reading. The latter interpretation is due to our world knowledge about animals like cats, which, as pets, can be purchased. The following examples illustrate this particular reading more clearly, for in these cases the subject refers to a more prototypical purchasable entity.

- (483) This sofa comes in four different colors.
- (484) This computer comes with a monitor.

According to our knowledge of the way humans and products interact, a salient way for a product to be accessible to a person is via *potential possession*. Thus, based on extralinguistic knowledge of the entities involved, we infer that the relation towards which the subject's referent is oriented is one of *availability for purchase* (i.e. accessibility in the form of *potential possession*). The generic construal of the Subject of Consciousness as 'all SCs' yields the idea that the artifact in question is available to *any Subject of Consciousness*, in this case, any person who might want to buy it.

A related sense is the 'beginning of availability for purchase' use exemplified in the following.

- (485) The new iPod is coming to stores/toMontreal/to Canada this spring.
- (486) The movie is coming to theaters/to Montreal/to Canada this fall.

Thus, the verb's meaning cannot be construed as describing a permanent, atemporal property but rather an imminent event. In these sentences, the present progressive indicates that the orientation holds at the time of speech and that the orientation corresponds to a process that is underway, yielding the idea of imminence. Here, the deictic center's reference is specified by a TO-phrase describing a physical location (either a general location such as Montreal or Canada, or an institution such as stores or theaters). Given the nature of the subject (a product or creation), we once again infer that the orientation toward accessibility to SCs in general is

to be interpreted as 'availability for purchase, viewing, etc.', and the locative complement is taken as indicating the physical location allowing this availability (i.e. where people can purchase or view the product). This reading is reinforced when the PP refers explicitly to a commercial institution that sells/makes products of the type referred to by the subject. In sum, for sentences (485) and (486) we arrive at the following compositional meaning: 'The new iPod/movie will soon be available for purchase/viewing in stores/theaters/Montreal/Canada'.

The uses discussed so far in the present section involve cases where the subject of COME refers to a concrete entity or an abstract product. We saw above that when the tense of COME is interpreted generically, the orientation is taken to be permanent and atemporal, yielding a situation in which X is available to be experienced by SCs in general, and the modifying expression is taken to describe a property that X generally possesses. When the modifier is a WITH-phrase, as in example (484) above, the atemporal property expressed is one of accompaniment by another entity. Likewise, when the subject refers to an abstract element, as in the following, and the verb is followed by a WITH-complement, the result is a situation in which one abstract element (the subject's referent X) is accompanied by another (the complement of WITH).

- (487) Neither nominee will accept the spending limits that come with public funds. (adapted from Corpus)
- (488) He enjoys the respect that comes with being an executive.

Once again, given that no complement specifies the reference of the deictic center, the latter receives the maximally general construal 'accessibility to the experience of all SCs', i.e. 'existence'. As a result, these examples express the following meaning: 'The respect/spending limits are oriented at all times toward existence, and this existence is accompanied by being an executive/by public funds'. The combination of the notion 'accompaniment' with the idea of an orientation that holds true at all moments yields the idea of entailment. That is, 'being an executive entails (receiving) respect', and 'public funds entail spending limits'.

The 'existence with a property' uses of COME are founded on notion of an implied source: in order for us to be able to meaningfully interpret the idea of an entity's permanent orientation toward existence, we must be able to infer that it is oriented from some source. For example, in order for a product to be available for purchase, it must be provided by someone. COME's meaning, which contains the notion of localization as an end state, implies a source localization, enabling this verb to express different 'existence with a property' situations. On the other hand, we have seen that since VENIR's meaning expresses orientation only toward the underspecified relation R, it lacks the necessary content to support such an inference. Whereas events and time periods can be easily conceived of as passing from potentiality to actuality (see the 'actualization' uses discussed in section 4.4), it is more difficult to conceive of an entity as undergoing such a transition to actuality unless the entity in question has some identifiable source. That is, according to our experience of the world, an entity cannot simply "materialize" out of nothing. Hence, this verb cannot be used to translate the above examples in which COME expresses 'existence with a property', as shown in (489) through (494). Note that the partial acceptability of the 'abstract accompaniment' use illustrated in (493) and (494) is due to the fact that the arguments involved, while not events, are abstract elements and can thus be more easily assimilated to events. Nonetheless, since in this use the tense is generic (anchoring the orientation at all times), the sentence describes a general truth rather than a punctual event. Hence, an event reading is ruled out, barring full acceptability.

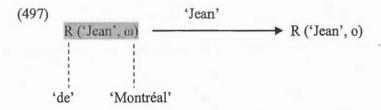
- (489) *Les chats viennent en diverses formes et tailles.
- (490) *Ce sofa vient en quatre couleurs différentes.
- (491) *Cet ordinateur vient avec un moniteur.
- (492) *Le nouveau iPod vient aux/dans les magasins/à Montréal/au Canada ce printemps.
- (493) ?Il aime le respect qui vient avec le fait d'être un PDG.
- (494) ?Aucun des candidats n'acceptera les limites de dépense qui viennent avec un système de subventions publiques.

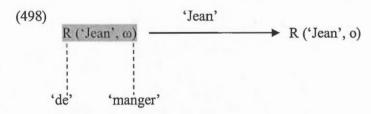
Before closing my discussion of the 'existence with a property' senses, it is interesting to point out a difference between Quebec French and Standard French: in the former, the 'availability for purchase' sense illustrated in (490) and (491) above is perfectly acceptable (and indeed quite frequently used). Although the question of regional variation goes well beyond the limits of the present study, it is worthwhile to suggest the beginning of a solution for this pattern. It may be that certain uses of VENIR in Quebec French are influenced by English via contact. In particular, the 'availability for purchase' use, which belongs to the domain of commercial transactions and consumerism, is presumably quite frequent in the input received by Quebec French speakers. Advertisements, product descriptions, etc. are frequently translated from English, and numerous anglicisms therefore make their way into the translations. This high frequency of use may have the effect of overriding the oddness brought about by VENIR's lack of implied source localization, perhaps even leading to a separately lexicalized meaning for this use in Quebec French.

4.12 Recent past

In this section I turn to the 'recent past' use of VENIR illustrated in (495). In this sentence, the complement of VENIR is a DE-phrase with an INF as the complement of DE. As seen in previous uses (e.g. motion, spatial extension, origin, etc.), a DE-complement of VENIR is always interpreted as telling us about the *source* relation of the orientation, not the end-relation. We have seen that when VENIR is followed by a destination complement introduced by \dot{A} , the latter preposition identifies (i.e. links to) R in the representation, and \dot{A} 's complement links to the point o. Likewise, when VENIR is followed by a source complement introduced by DE, the latter element identifies the source relation (an inferred R), and DE's complement links to R's argument, i.e. an inferred ω (since the source of an orientation is expected to be distinct from its destination). Thus, for an 'origin' sentence like (496), we obtain the representation in (497), and for sentence (495), we obtain the meaning schematized in (498).

- (495) Jean vient de manger.
- (496) Jean vient de Montréal.





The complement of DE in (495) is an infinitive verb describing an action, an element anchored in *time*. We thus most naturally construe the components of VENIR's semantics temporally: ω and o are points in time, and VENIR's orientation is the orientation intrinsic to time itself. Moreover, DE + MANGER tells us that the source of the orientation is a relation between 'Jean' and 'manger': it indicates that at time ω , 'Jean' is the agent of the action 'manger'. The deictic center o is 'a point that is accessible to the Subject of Consciousness', and the point in time that is most directly accessible to the SC (such as the speaker and/or hearer) at the utterance time is the utterance time itself; hence, the deictic center is construed temporally as 'now'. And given the orientation we attribute to time itself (from past to present to future), we infer that 'manger' is anterior to 'now', so the action is situated in the past.

Finally, since VENIR is in the present tense and the whole orientation is predicated of 'John', the sentence describes a property of Jean that holds at the utterance time. This results in the following compositional meaning: 'At the time of speech, Jean has the property of being oriented from his past action of eating toward his present state (i.e. not eating)'. As Bouchard

⁹⁶ See Bouchard's (1995, p. 139-144) similar analysis of this semantic use.

(1995, p. 143-144) points out, this orientation creates an effect of relevance, accounting for the "recentness" traditionally attributed to this construction. That is, in (495) above, the link of orientation between Jean's past action of eating and the moment of utterance portrays this action as being relevant or close to the present. When VENIR's tense places the moment of reference in the past rather than the present, as in (499), o is once again construed as 'a point in time that is accessible to SC at reference time', but this time the accessibility holds in the past. The deictic center is thus construed as a point in the past, and the relation of anteriority holds with respect to this reference time, yielding a relation of anteriority between two past moments.

(499) Jean venait de manger.

The element DE involved in this construction is highly abstract, as evidenced by the vast array of uses it has in French. The corresponding English prepositions FROM and OF have a narrower range of uses, and thus presumably a less general semantic content than DE⁹⁷. We can also assume that it is this highly general meaning that allows DE to take not only a noun phrase, but also an INF as an argument⁹⁸. In contrast, FROM is the element that typically introduces a source in combination with COME (as in (500)). Presumably due to its more restrictive semantics, FROM can only take a gerund as a verbal complement (as in (503)) and never accepts an INF as a complement, as shown in (501) and (502). Crucially, the unacceptability of (504) indicates that the gerund's semantics is incompatible with a recent past situation. This is most likely because the INF is an irrealis form while the gerund is not. Hence, due to the absence in English of a highly general source-preposition like the French

⁹⁷ Note however, that an analysis of DE's semantic content goes far beyond the boundaries of this study.

⁹⁸ Another use in which DE introduces an INF is its complementizer role: e.g. Jean a fini de lire le livre; Jean oublie toujours d'apporter ses clés. That DE functions as a complementizer in such sentences is shown by the fact that the infinitival complements alternate with NPs rather than with PPs: Jean a fini sa soupe vs. *Jean a fini de sa soupe; Jean oublie toujours ses clés vs. *Jean oublie toujours ses clés.

DE that is capable of taking an INF as a complement, COME cannot be used to form the 'recent past' construction that we observe for VENIR.

- (500) John comes from Montreal.
- (501) *John's headache comes from (to) think about polysemy.
- (502) *John comes/is coming from (to) eat.
- (503) John's headache comes from thinking about polysemy.
- (504) *John comes/is coming from eating.

The above analysis predicts that in order to have a 'recent past' use, a language must have some maximally general means of linking a verbal complement to the source of the orientation in the COME-verb's semantic representation. This prediction is borne out by evidence from Malagasy, whose equivalent to COME is AVY. As I show in Zuercher (2010), because AVY's meaning encodes the notion of source directly, a source preposition is not required in order to link a complement to the source part of AVY's semantic representation, as shown in (505). Indeed, Malagasy has no prepositional equivalent to DE or FROM; rather, due to AVY's semantics, it is AVY itself that fulfills the role of DE-preposition when combined with other motion verbs, as in (506). Crucially for the present discussion, for this reason AVY can also take a verb directly as a source complement. In sum, since Malagasy possesses a highly general equivalent to French DE – namely, the COME-verb AVY itself – Malagasy exhibits the 'recent past', as shown in (507)⁹⁹.

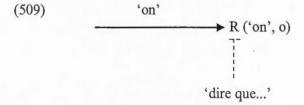
⁹⁹ The fact that the AVY's complement is not an INF (a form that does not exist in Malagasy) but rather a past-tense active verb requires explanation, but this goes beyond the limits of the present study. The answer most likely lies in the fact that Malagasy's tense and aspect system is radically different from those of Indo-European languages.

- (505) Avy Fianarantsoa Rakoto. come Fianarantsoa Rakoto 'Rakoto comes from Fianarantsoa.'
- (506) Tonga avy Fianarantsoa Rakoto. arrive come Fianarantsoa Rakoto 'Rakoto arrived from Fianarantsoa.'
- (507) Avy nisakafo Rakoto. come PAST-eat Rakoto 'Rakoto has just eaten.'

4.13 COME/VENIR + VERB: impact on the SC

We saw earlier (section 4.2) that when VENIR is combined with an adjunct verb expressing an action, this can yield a 'motion + action' situation in which the subject's referent (a concrete, mobile entity) undergoes a movement through space and performs an action either during or at the end of the movement. However, because VENIR is not inherently spatial, the VENIR + bare-INF construction can also yield an abstract reading when context favors such a reading. Consider example (508) below, whose components yield the meaning representation in (509).

(508) On viendra sans doute dire que j'exagère.



In this sentence, the INF adjunct describing the relation R denotes a speech act. On the one hand, since speech acts have a physical reality, the sentence can be receive a progredience reading; under this reading, the sentence describes a movement undergone by a person, and the speech action expressed by *dire que*... takes place at the destination location of this movement. But another way to establish a relation with 'a point that is accessible to the SC' via an action like 'saying' is for this action to be part of the SC's experience and thus to have an *impact* on the SC. In this case, we interpret o not as 'the SC's location', but rather as 'the

SC's experience' (see section 4.5). In addition, the orientation component itself suggests that the action does not merely occur; it *enters into* the SC's realm of experience. This presupposes that the source of the action's orientation is a point other than the SC's experience, which has the effect of portraying the action as unexpected, surprising, or even fortuitous in the eyes of the SC. This effect of surprise/fortuitousness is even more pronounced when supported by background/world knowledge, as in the case of (510).

(510) Ne viens pas me dire que Jean est malade!

While the progredience use is restricted to animate subjects (as Bouchard, 1995, p. 130-131) because only animate entities can undergo self-movement toward a location with the intention of performing an action there, virtually any kind of element (an entity, an event, a quality, etc.) can enter an SC's experience unexpectedly and have an impact on him. Thus, sentences like (511) and (512) below are fully acceptable. Note also that construal of the notion 'relation to o' as 'being in the SC's experience' and thus as 'impact on the SC' presupposes nothing about the negative or positive character of the impact. Thus, while sentences like (510) and (511) express or imply a negative impact on the speaker, (512) is not clearly negative or positive, and the impact in (513) is clearly positive. As for (514), although VENIR serves to express that the light's 'tempering of the reflection' would have some psychological effect on the observer by entering into his experience, the precise nature of this effect could only be gathered from background of contextual knowledge. In other words, in all of these examples the nature of the impact itself is obtained from extralinguistic knowledge (e.g. hearing about a sick friend typically affects a person negatively, while finding evidence in support of one's point typically brings about satisfaction).

- (511) Des pensées insupportables venaient m'assaillir.
- (512) Rien n'est jamais venu contredire les résultats de cette expérience.
- (513) Son histoire vient appuyer le point que je défendais tout à l'heure.
- (514) Une lumière que nul reflet ne vient tempérer. (Gautier, cited in the Grand Robert de la langue française)

According to Bouchard (1995, p. 145-147), the notion of impact on the speaker seen in this use is derived by construing the deictic center as 'me'. However, I consider that my

characterization of the deictic center in terms of accessibility provides a stronger explanation for how 'impact' is obtained in this construction: X does not relate directly to the speaker, but rather to 'a point that is accessible to the SC', and the most natural way for an abstract action to become accessible to a person is for it to enter into his experience and impact him. Moreover, since the deictic center is defined in terms of the Subject of Consciousness rather than the narrower notion 'me', we correctly predict that the 'impact' use can express impact on people other than the speaker, as in the following examples.

- (515) Peut-être qu'un événement imprévu viendra changer ta vie.
- (516) Jean avait peur que la pluie vienne gâcher ses plans.

We have seen that like VENIR, COME can be used to express a 'motion + action' situation with the progredience construction, as in (517). This is possible because in a context supporting a concrete construal of COME's localization component, the INF adjunct is interpreted as describing this localization: in (517), the INF adjunct indicates that the localization at the end of the orientation is achieved via the action 'eat', so there is an orientation toward John's eating while localized at the point o. Given that eating is a concrete action, the most natural way for this to occur is if John is *physically located* at o.

(517) John will come eat at our house today.

Crucially, as discussed earlier (section 3.3.2), localization is compatible with situations in which the figure is anchored at a stable ground. This property is respected in a concrete construal of COME, in which localization is construed as being physically present at a place. We have also seen that COME's localization is compatible with a construal as 'the SC's experience', which accounts for the 'actualization' and 'individual experience' uses in (518) and (519), respectively. In these uses, the subject's referent enters the SC's experience by entering into existence, and 'being in existence' is compatible with localization's portrayal of a figure being anchored at a stable ground. However, in the 'impact on the SC' use observed for VENIR, the end-relation is not achieved by X's entering into existence. Rather, X merely enters the SC's experience via an action. Crucially, actions are ephemeral, so 'being in the SC's experience via an action' is not fully compatible with localization's portrayal of X as anchored at a stable ground. Consequently, while COME can be used to express 'motion +

action', it cannot be used to express 'impact on the SC' as in (520) through (523). This observation holds true regardless of whether COME is combined directly with an INF, combined with a verb via AND (as in (520) through (522)) or appears in the COME + V-ing construction (as in (523)) 100.

- (518) The crisis came during what was already a difficult time for the economy.
- (519) Good fortune will come to you if you are patient.
- (520) *Someone will most likely come (and) say that I am exaggerating.
- (521) *Don't come (and) tell me that John is ill!
- (522) *Nothing has ever come and contradicted the results of this experiment.
- (523) *Don't come telling me that John is ill!

In the present chapter I have shown that although COME and VENIR possess a wide range of semantic uses, these senses are all manifestations of a single lexical meaning. Both verbs express 'orientation toward a relation with the deictic center, a point that is accessible to a Subject of Consciousness'; hence, the semantic behavior of these verbs shows a considerable degree of cross-linguistic similarity. However, I have also shown that a single difference in intrinsic meaning (i.e. the nature of the end-relation), in combination with cross-linguistic asymmetries in grammar and lexicon, gives rise to an important number of differences in the specific semantic uses that are possible for these verbs. In the following chapter, I show that this same generalization applies to the verbs GO and ALLER.

¹⁰⁰ Note that some of these English sentences were judged to be marginally acceptable by my informants, but I suspect that this is based on a metaphorical, movement-based reading, not on a genuine, abstract 'impact' reading.

CHAPTER V

THE SENSES OF GO AND ALLER

In this chapter I discuss the verbs GO and ALLER, showing how their semantic uses are obtained in context. Like COME and VENIR, all of the senses of GO and ALLER result from a single, abstract meaning in combination with background and contextual knowledge. In addition, as was the case for COME and VENIR, the numerous sense similarities and differences observed for GO and ALLER follow from minor differences in their core meanings as well as from grammatical differences between English and French.

5.1 Motion

Like COME and VENIR, GO and ALLER can be used to express motion when the subject is a concrete, mobile entity, especially one capable of locomotion. This happens when the orientation toward a relation with the constant – in this case, the anti-deictic center ω – is interpreted as orientation toward a spatial localization at a point other than o, i.e. movement toward a point in space other than 'here'. In what follows, I first discuss the properties of the 'motion' senses that are common to both GO and ALLER, and I then provide an account of the differences in 'motion' uses observed for these two verbs.

As Bouchard (1995, p. 150) points out, VENIR and ALLER differ through only a single element, the nature of the constant they contain: while VENIR contains the deictic center o, ALLER contains the anti-deictic center ω. As I showed above (section 3.4), English COME and GO are distinguished from one another in precisely the same way. In addition, English verbs show the same difference in semantic content with respect to their French quasi-equivalents: while VENIR and ALLER express orientation toward the maximally general relation R, COME and GO contain the more specific end-relation L, *localization*. Thus, the

semantic representations for the monosemous meaning of GO and ALLER identified in Chapter III are the following:

(524) GO:
$$X$$

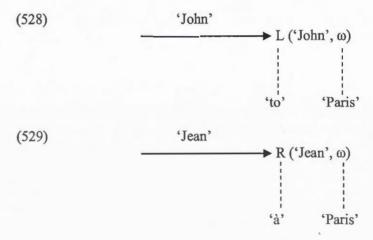
$$\longrightarrow L(X, \omega)$$
(525) ALLER: X

$$\longrightarrow R(X, \omega)$$

Although GO and ALLER do not intrinsically encode the notion of movement, a 'motion' use emerges in sentences like (526) and (527).

- (526) John is going to Paris this summer.
- (527) Jean va à Paris cet été.

In examples (526) and (527), the locative PP complement is interpreted as providing information about the reference of the end-relation encoded in the verb's semantics (R in the case of VENIR, L in the case of GO). Thus, Paris, the complement of the preposition TO/ \dot{A} is taken to be co-referential with ω . The combination of the elements of these sentences with the invariant semantic representations of GO and ALLER yields the meanings illustrated in (528) and (529), respectively. This meaning can be paraphrased as follows: 'John/Jean is oriented toward being in a relation (localization or general relatedness, respectively) with the point ω , that is, with the city *Paris*'.



Given our world knowledge about the entities being referred to by the arguments - i.e. John/Jean most likely refers to a human being, a spatial entity, and Paris most likely refers to

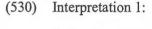
a city, another spatial entity – we infer that the sentence describes a spatial situation and that the verb's semantics must therefore be interpreted in the domain of space. This fact, combined with the fact that ω is co-referential with *Paris*, indicates that ω refers to a spatial point.

The semantic content of GO expresses that the end-relation of the orientation is one of localization: L('John', 'Paris'). Combined with the inferred notion of space, this abstract localization is interpreted as a state of being physically located at a point. Since world knowledge tells us that the most natural way for a concrete, mobile entity (e.g. a human) to be oriented toward being located at a spatial point is to undergo *movement*, the pragmatically enriched meaning we obtain for the sentence is: 'John undergoes movement to the location ω , i.e. Paris'.

Unlike GO, ALLER's semantics does not contain the notion of localization. However, in sentence (527) above, this notion is nonetheless provided by an element external to the verb, the preposition \dot{A} . This preposition does not intrinsically express directionality and can therefore be assumed not to contain the notion of destination. But since the \dot{A} -PP complement of VENIR links with the *end-relation* of the orientation in VENIR's representation, this PP is interpreted as describing the end-state resulting from the motion event: it thus refers to a destination. Consequently, despite the absence of localization in ALLER's meaning, the compositional, contextually enriched meaning of sentence (527) is essentially equivalent to that obtained for its English translation (526): 'Jean undergoes movement to the location ω , i.e. Paris'.

Finally, the deictic properties of the constant ω provide information about the destination *Paris*. Recall that ω is defined as 'any point other than the deictic center o', and that the latter is defined as 'a point that is accessible to an SC'. Since the most obvious spatial point to which a given SC has access is *his own location*, a spatial construal of ω yields the interpretation 'a point *other than* the SC's own location'. Hence, in sentences (526) and (527) above, Paris, by virtue of being co-referential with ω , is identified as being a location other than that of the SC. On the one hand, since the most salient default SC for a given utterance is the speaker (see Ruwet, 1991, p. 55), in order for these sentences to be uttered acceptably, the

speaker must not be located in Paris at the utterance time. On the other hand, GO and ALLER contain no information about the *source* of the orientation. Thus, sentences like (526) and (527) are neutral with respect to the deictic properties of the point of departure: while they can describe an event in which John/Jean is *leaving the speaker's location*, they can also equally well describe an event in which John/Jean's departure point is some location other than that of the speaker¹⁰¹. These two logically possible movement situations for GO/ALLER are illustrated schematically in (530) and (531), where S represents the location of the speaker at utterance time.





(531) Interpretation 2:





Since in a motion construal GO and ALLER describe movement toward a place other than the SC's location (more specifically, some place other than 'here' when the SC is the speaker himself), these verbs are incompatible with the locative complements HERE and ICI, which intrinsically encode the idea 'speaker's location at the utterance time':

¹⁰¹ As I show throughout this chapter, because the anti-deictic center in GO/ALLER's meaning is defined very generally as 'any/some point other than the deictic center', these two verbs have a broader range of uses than their deictic counterparts COME/VENIR.

- (532) *Go here!
- (533) *Va ici!
- (534) *John went here yesterday.
- (535) *Jean est allé ici hier.

The 'motion' reading obtained for sentences like (526) and (527) is due in part to the presence of the notion of localization, which is provided by GO's semantics in (526) and by À's semantics in (527). When there is no complement expressing localization but some other element of the sentence provides information strongly supporting a motion situation, we can still obtain a 'motion' use for GO and ALLER. For example, in (536) and (537), although no complement specifies the destination of the movement, there is a complement specifying a spatial path (down the stairs, dans toutes les directions). Based on this notion of spatial path combined with the notion of orientation provided by GO/ALLER's intrinsic meaning, we infer that the subject's referent is moving along the path. Moreover, in our experience of the world, paths are finite and thus have an endpoint. When an object moves along a path, it eventually ends up being physically located at that endpoint. We therefore infer an endrelation of (spatial) localization from the elements present in the sentence and from our world knowledge. Note that as in (526) and (527) above, the movement must be toward some point other than 0, even though in (536) and (537) o is not explicitly identified by a complement.

- (536) He held the rail as he went down the stairs. (Webster's Third New International)
- (537) Les gens allaient dans toutes les directions.

In sentences (538) through (541), there is no complement at all, but there is a modifier expressing a property of movement: speed in (538) and (539), and distance in (540) and (541). Thus, here too the elements present in the sentence provide sufficient information to

allow us to arrive at a 'motion' reading without the presence of a destination complement expressing localization¹⁰².

- (538) This car goes fast.
- (539) Cette voiture va vite.
- (540) John went far before stopping.
- (541) Jean est allé loin avant de s'arrêter.

Despite surface similarities in the motion uses of GO and ALLER, the difference in their intrinsic semantic content – i.e. the nature of the end relation (L vs. R) – causes several differences in the behavior of these verbs in a motion context. As pointed out by Lamarche (1998), the possibility of using a verb to describe a given situation depends crucially both on the intrinsic semantic content of the verb itself and on the information provided by the elements present in surrounding context. This, he claims, accounts for the contrast in use observed between ALLER and semantically richer verbs like MONTER and DESCENDRE, the latter of which rely less heavily on the presence of sentential context to describe specific movement situations:

Alors que les verbes qui ont une constante n'ont pas besoin d'un complément syntaxique pour identifier une situation, *aller* requiert la présence d'un complément pour identifier une situation correspondante. En revanche, l'absence d'une constante dans *aller* en fait un verbe qui permet de référer à des situations plus générales que les verbes qui ont une constante. (Lamarche, 1998, p. 51-52)

However, when the distance expression is a measure NP rather than an adverb, a 'motion' use is acceptable in English but not in French. Compare: It took us over an hour to go ten kilometres vs. *Cela nous a pris plus d'une heure pour aller dix kilometres. This may be due to the absence of localization in ALLER's meaning: presumably, a distance-NP, which expresses merely a magnitude but does not contain the idea of endpoint or movement, can only function as a modifier when the verb itself contains end-localization OR when the verb contains other material (like manner of movement, as with COURIR) allowing movement to be inferred. In contrast, a distance adverb like LOIN is acceptable because it expresses the idea of two spatial points separated by a distance and hence suggests a starting point and an endpoint.

In other words, when a verb's lexical semantic content is highly general (as in the case of ALLER) and information provided by external elements (as well as background knowledge) does not fill in the necessary details, certain semantic uses are impossible for the verb in question. We saw in Chapter IV that because COME's semantic content is more specific than that of VENIR, certain uses observed for the former are unacceptable for the latter. Likewise, as I will show throughout the present chapter, the fact that ALLER's meaning is more general than that of GO allows us to account for a wide range of differences in the possible uses of these two verbs.

For example, because GO contains the idea of localization at an end point, a 'motion' reading can be obtained for this verb even if the sentence contains neither a complement nor a modifier, as in example (542) below. In contrast, due to ALLER's lack of intrinsic localization at an end-point, when there is neither a locative complement nor a modifier describing a property of movement, information provided by the sentence is insufficient to lead to a reading involving dynamic orientation toward localization at a spatial point. Thus, use of ALLER without such a complement or modifier is unacceptable, as shown in (543). In order for this sentence to be made acceptable, we minimally require some element expressing localization. As shown in (544), this can be accomplished by adding the maximally general locative Y. This follows naturally from Y's semantic content: Y expresses localization, for it is semantically equivalent to À + LE.

- (542) Are you going to the concert? Yes, I'm going.
- (543) Vas-tu au concert? *Oui, je vais.
- (544) Vas-tu au concert? Oui, j'v vais.

As pointed out by Lamarche (1998) and as shown in (545) through (547), ALLER contrasts with VENIR on this point, for the latter can appear acceptably without a complement or modifier in the 'motion' use. The reason for this difference is that the deictic center is much narrower in its potential reference than the anti-deictic center. In a context supporting a motion reading, VENIR makes it much easier than ALLER to pick out the proper referent for the end-point of the movement among all of the potential possibilities: the end-point is 'a point that is accessible to the SC', and in any given spatial situation, the number of points that

can be considered spatially accessible to the SC are quite limited in number. In contrast to this, the spatial points qualifying as potential referents for ω (i.e. all points that are not spatially accessible to the SC) are virtually infinite in number. Hence, we can arrive at the intended interpretation of R('Jean', ω) as localization of Jean at a spatial point more easily than we can for R('Jean', ω), making it possible to obtain the motion sense without an explicitly mentioned destination for VENIR but not for ALLER.

- (545) Est-ce Fred vient au concert? Oui, il vient.
- (546) Viens!
- (547) *Va! (Vas-y!)

Note that this difference between English and French is indeed due to the difference in semantic content between GO and ALLER, and not to a rule concerning ellipsis. Thus, while some may claim that in (542) above the destination expression has undergone ellipsis, the acceptability of (548) shows clearly that the absence of a destination complement is possible without a previously mentioned destination, and thus without ellipsis. Once again, this sentence's direct French translation (549) is unacceptable because of the absence of an element providing localization¹⁰³.

Note that Lamarche (1998, p. 194-200) argues against a lexical solution to this problem, hypothesizing instead that GO and ALLER have identical semantic content. This author suggests that the contrast in the omissibility of the complement is due to grammar, in particular, to an asymmetry in the verbal morphology of French and English. However, he does not indicate which morphological properties are responsible and how the alleged cross-linguistic difference in ellipsis might follow from them. Moreover, while he points to contrasts in the pairs BE/ÊTRE and STAY/RESTER to support his hypothesis, I can think of very few other English/French pairs that exhibit this kind of contrast. If the source of this cross-linguistic asymmetry were indeed grammatical, we would expect the contrast to be manifested systematically across a wide variety of verbs. Hence, a grammatical solution for this difference between English and French appears dubious.

- (548) Keep your hands inside the car while it is going!
- (549) *Garde tes mains à l'intérieur de la voiture pendant qu'elle va!

In (542) above, the destination of motion is provided by discourse. When GO is used in a motion context without a complement, and when there is no obvious destination available from discourse or background knowledge, we infer that there is some potentially identifiable destination location due to GO's intrinsic localization component. The omission of an explicit element identifying this destination, together with the fact that it is not readily available from discourse, has the effect of backgrounding the destination in the situation being presented. This backgrounding of the destination is reinforced in (548) by the use of the progressive aspect, which focuses on a subpart of the event and hence takes focus off of the event's temporal boundaries.

When background knowledge indicates that some movement is to take place (for example, in the context of a race) but has not yet occurred at reference time, as in (550) and (551), then the notion of a motion event is presupposed. This background knowledge brings us to interpret the omission of the destination in the sentence as placing emphasis on transition from a state of non-movement to a state of movement. Consequently, we obtain a 'beginning of movement' reading. As shown in (552) and (553), because ALLER lacks the intrinsic notion of localization at an end point, the verb does not have the necessary content to supply the idea of an unmentioned but identifiable spatial destination, so the French counterparts of these sentences are unacceptable. Predictably, when the general element Y expressing localization is added to fulfill this function, this semantic use becomes possible (example (554)).

- (550) On your mark, get set, go!
- (551) Go when the light turns green.
- (552) *À vos marques, prêts, allez! (Instead : À vos marques, prêts, partez!)
- (553) *Va quand le feu est vert. (Instead : Pars quand le feu est vert.)
- (554) Vas-y: le feu est vert!

Alternatively, the absence of an explicit destination can lead to a 'departure' reading. In (555) below, the absence of a destination phrase once again has the effect of backgrounding the notion of destination. However, since this sentence would typically be uttered in a situation in which the hearer knows the speaker's location at utterance time, the source location is known information. In addition, elements of the discursive context (in the present case, the sentence It is late and the modal must) attribute urgency to the motion event. This urgency, combined with the focus on the point of departure resulting from the backgrounding of destination, yields a reading in which GO describes departure from whatever location X occupies at the reference time. Once again, ALLER can also express this 'departure' interpretation, but only provided that the general locative Y is used.

- (555) It is late. I really must go.
- (556) *Il est tard. Je dois vraiment *(y) aller.
- (557) Il faut vraiment que j' *(y) aille.

Before closing this discussion of the 'motion' use of GO and ALLER, I would like to point out several related uses. In the sentences examined so far in the present section, the end localization (intrinsically expressed by GO and provided via À in the case of ALLER) is interpreted as X's being physically located at a point in space. This physical construal of localization is due to the way mobile objects like people establish localization relations with large, immobile entities such as cities. In sentences like (558), world knowledge rules out such a reading. However, a human's eyes can be used metonymically to refer to vision as in

(559). Moreover, vision involves a point of focus that we can locate in space, and whenever we move our eyes, this point also moves. Therefore, GO in (558) is most naturally interpreted as expressing 'shift of gaze', 104.

- (558) My eyes went to the far side of the room, where I had heard a sudden noise.
- (559) Keep your eyes on that suspicious fellow.

Another non-movement sense that shares characteristics with a prototypical motion reading involves Internet navigation. As shown for COME and VENIR, when the destination phrase refers to a website, knowledge about this entity rules out a relation of physical localization, and instead, we interpret the sentence as describing virtual navigation resulting in localization at a website. On the other hand, unlike web navigation, which occurs purely in a virtual space, the reading of a printed document is more anchored in physical space. Thus, in order to express orientation toward consultation of a printed text, we require greater support from the components in the sentence. Because GO expresses end-localization more directly than ALLER (the latter getting localization only via À), a 'document consultation' use is easier to obtain for GO than for ALLER, as shown in (562) and (563).

- (560) He went to the store's website to check the price of the product.
- (561) Allez au/sur le site web pour obtenir les informations dont vous avez besoin.
- (562) One must go to the original documents for an account of the colony's early years. (Webster's Third New International)
- (563) *Nous devons aller aux documents originaux pour trouver les réponses.

Another use involving a person's establishment of a localization relation comparable to spatial localization is 'appearance on a television/radio show', illustrated in (564). Once again, given that this extra-linguistic reality is a less prototypical localization situation, we

¹⁰⁴ Although I am at present unable to fully account for the impossibility of this use for ALLER (*Mes yeux sont allés à/vers l'autre côté de la pièce, où j'avais entendu un bruit soudain), the explanation quite likely lies in the fact that ALLER's more general semantic content makes it more difficult to arrive at a non-prototypical movement situation such as this one.

require greater support from the semantics of the sentence to describe the situation, so GO is appropriate, while ALLER is less natural (565).

- (564) The politician went on the popular television show and declared that he would run for re-election.
- (565) ?Le politicien est allé à l'émission populaire pour annoncer qu'il allait se porter candidat à la réélection.

Finally, when the subject of GO or ALLER refers to a message of some kind (an entity that inherently oriented from sender to receiver), the orientation is interpreted as 'transmission of a message'. This is because the most natural way for a message (a mental, communicative content) to establish a localization relation with a person is to enter into the person's possession and to become the potential mental content of that person. Moreover, in our experience of the world, transmission of a message typically involves transmission between two distinct physical locations (that of the sender and that of the receiver), hence the resemblance between this semantic use and the prototypical 'motion' use discussed in the present section.

- (566) The email went to everyone in the company.
- (567) Le courriel est allé à tout le monde au département.

5.2 Motion + action

In this section, I discuss uses of GO and ALLER involving the expression of a motion event together with an action. Since the properties of the 'motion + action' uses of GO/ALLER are in large part identical to those of the 'motion + action' uses of VENIR/COME, in the following subsections I discuss certain aspects only briefly. There are three basic, logically possible relations between a motion event and an action carried out by the same agent: 1) manner of movement (i.e. the action term specifies the manner in which the movement is carried out); 2) simultaneity (i.e. the motion event and the action are distinct but coincide temporally); and 3) consecutiveness (i.e. one happens after the other). Moreover, when the relation is one of consecutiveness and it is the motion event that precedes the action, we generally infer that the action constitutes the very *purpose* of the motion event. As seen

above (section 4.2), this is due to world knowledge about human motion: people generally go to places in order to do specific things at those places. In English, this notion of purpose can be expressed explicitly via TO, as in (568) and (569), or it can be inferred when GO and the action verb are merely linked by the coordinating conjunction AND, as in (570) through (571).

- (568) John went to talk to Paul yesterday.
- (569) John went to buy some bread.
- (570) Go and help them set the table.
- (571) John went and helped them set the table.

Because ALLER does not contain localization, there must be a destination complement in order for these uses to be acceptable. This is shown in the following: the direct French translations of (568) through (571) involving a POUR-purpose-adjunct or ET-coordination are unacceptable, but the addition of a locative complement makes them acceptable.

- (572) *Hier Jean est allé pour parler avec Paul.
- (573) Hier Jean est allé au bureau de Paul pour lui parler.
- (574) *Jean est allé pour acheter du pain.
- (575) Jean est allé à l'épicerie pour acheter du pain.
- (576) *Va et aide-les à mettre la table.
- (577) Va dans la cuisine et aide-les à mettre la table.
- (578) *Jean est allé et les a aidés à mettre la table.
- (579) Jean est allé dans la cuisine et les a aidés à mettre la table.

Note that the construction GO/ALLER + TO/POUR can receive a different reading, one that is acceptable for both verbs (at least in the informal register). When the INF itself denotes an action involving movement and contextual information indicates that this intended action ends up not occurring, as in (580) and (581), we obtain a situation in which an orientation toward a movement action begins but is not fully realized. Thus, rather than interpreting

GO/ALLER as describing a change of location ending at a destination, we interpret X's interrupted orientation as X's merely beginning the action or undertaking steps that normally lead up to this action. Indeed, these sentences are acceptable even if the subject does not change location at all but only carries out anticipatory movements such as reaching for a door handle. Crucially, the reason that this 'unrealized motion' use is possible for ALLER is that the notion of destination is not provided by the main verb, but rather by the INF that directly applies to the end-relation in ALLER's semantic structure.

- (580) She goes to get out of the car, but then she changes her mind.
- (581) Elle va pour sortir de l'auto, puis elle change d'idée.

In addition to general means available for constructing a 'motion + action' situation (means which are not attributable to the semantics of these verbs in particular and which are thus available to motion verbs in general), specific properties of the invariant semantic representations of GO and ALLER lead to additional ways to express 'motion + action': 1) through a destination complement PP; 2) through progredience; and 3) through the use of a present participle. In the following subsections, I examine these different constructions one by one, showing how the specific type of reading obtained in each case emerges compositionally from the combined information provided by the verb's arguments, by grammar and by background knowledge.

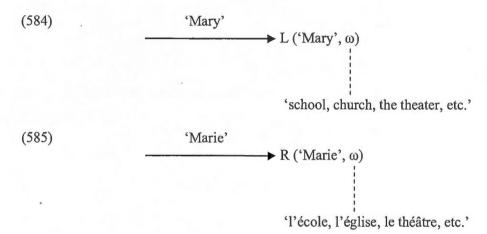
5.2.1 GO/ALLER + destination PP

If the PP complement of GO or ALLER refers to a location that is strongly associated in our world knowledge with a specific activity¹⁰⁵, this leads to the inference that the motion event has as its goal and effective outcome the accomplishment of an activity at the destination

¹⁰⁵ See Vandeloise (1991, p. 173-184), who discusses this type of metonymy with complements of the localization preposition Å.

location, as in (582) and (583)¹⁰⁶, whose meanings are represented schematically in (584) and (585), respectively. In other words, given world knowledge about the salient link between the location and the activity carried out at that location, sentences like these can be interpreted metonymically as describing 'motion followed by an activity'.

- (582) Mary goes to school/church/the theater/the cinema/the doctor's office/the hair salon/the store every week.
- (583) Marie va à l'école/à l'église/au théâtre/au cinéma/chez le médecin/chez le coiffeur/à l'épicerie chaque semaine.



When the destination PP complement of ALLER refers not to a spatial location, but rather to a resource (such as food or information) as in (586) and (587), we infer that the end relation is one where the subject ends up at a certain location where he obtains the resource in question¹⁰⁷. The absence of this use in English, shown by the unacceptability of (588) and

¹⁰⁶ Note that in some cases in English (e.g. *goes to school, to church*), the metonymic construal of a location as the activity accomplished at this location is further reinforced by the absence of a determiner, a syntactic context that forces a non-count (i.e. mass) construal of the noun, a reading that is more compatible with an activity than a location.

¹⁰⁷ The examples aller à l'esturgeon, aux asperges, aux provisions, au bois, à l'eau, aux nouvelles, aux informations given by the Grand Robert de la langue française are further illustrations of this same use.

- (589), is presumably due either to semantic differences between À and TO or to differences between semantic properties of the French and English determiner system.
 - (586) Nous allons aux fraises ce week-end.
 - (587) Jean et Marie ne connaissent pas bien cette ville, donc ils sont allés aux renseignements.
 - (588) *We are going to (the) strawberries this weekend.
 - (589) *John and Mary don't know this city very well, so they went to (the) information.

On the other hand, since English GO allows omission of the destination complement (due to its intrinsic localization component), it can be combined with a FOR-phrase expressing purpose in order to express a similar situation, as in (590) and (591). ALLER, which does not allow omission of the destination complement in a motion situation, cannot appear in this use (shown in (592) and (593)).

- (590) We are going for strawberries this weekend.
- (591) John and Mary don't know this city well, so they have gone for information.
- (592) *Nous allons pour des fraises ce week-end.
- (593) *Jean et Marie sont allés pour des renseignements.

However, due to the difference in the elements that enter into the composition, this English construction (GO + FOR + NP) is not completely equivalent to the French construction (ALLER + AUX + N). In the case of the French construction, since the NP referring to the resource is part of the destination phrase introduced by the localizer A, it is interpreted metonymically as the location at which the resource in question is to be acquired. Moreover, the fact that the resource is expressed as a destination depicts the activity of obtaining the resource as a goal in itself: in sentence (586) above, it is the act of picking strawberries (and not merely the strawberries themselves) that constitutes the goal of the movement. In contrast to this, in the English construction GO + FOR + NP does not depict the resource as a destination; instead, this construction receives an 'errand' reading in which the main goal is simply to obtain the resource. That is, since no localization relation is established with the expression referring to this resource, there is nothing to support the inference that the activity

constitutes a goal in itself (e.g. strawberry-picking as a leisure activity rather than strawberry-buying as a chore).

When the destination TO/À-phrase refers to a person and elements of the context suggest an activity involving that person, we interpret the destination phrase metonymically as referring to the person's location, and the activity (i.e. the interaction) is inferred to take place at that location. This is the case for sentences such as (594) and (595), where the elements to tell him... and pour lui dire... indicate a communication act, a type of interaction prototypically involving face-to-face interaction and thus spatial localization at the same point. However, since ALLER's meaning contains no localization component, this verb requires richer context than GO in order to obtain this reading. Thus, when no explicit mention is made of the type of interaction to take place, the use is acceptable for GO, but marginal for ALLER, as shown in (596) and (597). This is true even when an element of context indirectly suggests the type of interaction to take place: (598) is fine, while (599) is not 108.

¹⁰⁸ Note that in English, when no lexical element specifies the type of interaction, we infer that the latter is communication, the most frequent type of face-to-face interpersonal interaction according to our world knowledge. Note also that French does exhibit certain expressions of the type ALLER + AUX + N in which the N refers to a person (e.g. aller aux femmes, aux danseuses [Québ.]). The interpretation obtained for this construction is on a par with the 'resource' use seen above (e.g. aller aux fraises): the referent of N is depicted as a "resource", and the activity at the end-location is inferred from context and/or world knowledge.

- (594) I will go to the prince to tell him what I have heard.
- (595) Et je vais de ce pas au Prince pour lui dire... (Molière, cited in the Grand Robert de la langue française)
- (596) I will go to the prince immediately.
- (597) *J'irai au prince immédiatement.
- (598) If you need advice, you should go to John.
- (599) *Si tu as besoin de conseils, tu devrais aller à Jean.

Finally, when the PP complement of GO and ALLER refers not to an entity but to an action, as in (600) and (601), the sentence expresses that the subject's referent establishes a relation of localization with an action. Given our knowledge that human movement is typically oriented toward the accomplishment of actions, and given that many actions require a prior movement before they can begin (e.g. one must typically travel a certain distance in order to engage in war), for sentences like (600) through (602) we infer that X undergoes a movement, that the action referred to by the destination PP is the goal of the movement, and that the action occurs at the destination location of this movement. Note that in the case of go to war, if the subject refers to a country instead of a person, a 'motion + action' reading is ruled out by world knowledge: unlike people, countries cannot undergo change of location. Thus, instead, for a sentence like Germany went to war with Russia, we obtain an abstract 'change of state' use in which the NP war is interpreted as a state. As I show in section 5.5, such a use is possible for GO + TO + NP, but not for ALLER + A + NP, whence the unacceptability of *L'Allemagne est allée à la guerre avec la Russie.

- (600) John does not want to go to war.
- (601) Jean ne veut pas aller à la guerre.
- (602) Jean va au combat/à la chasse.

Finally, while certain activities (e.g. guerre, chasse) typically require that the traveling take place before the movement event, other nouns (e.g. walk, cruise, pèlerinage) denote activities that are motion events themselves. When GO/ALLER's PP complement contains the latter type of noun, we therefore infer that the motion event and the activity are part of a single

event: the noun is taken as describing the nature of the movement itself. In this case, the basic destination locative preposition (TO/À) is no longer used, since the PP does not refer to the destination of the movement ¹⁰⁹.

- (603) Let's go for a walk.
- (604) My parents are going on a cruise.
- (605) Aller en pèlerinage, en ambassade, en conquête

5.2.2 Progredience: GO/ALLER + bare INF

As with COME and VENIR (see section 4.2.1), when GO and ALLER are followed by an infinitive adjunct, the latter is taken to provide information about the end relation encoded in the main verb's semantics (L and R, respectively). For example, in sentences (606) and (607), the INF *déjeuner* describes the relation R contained in ALLER's meaning, as schematized in (608), and this yields a situation paraphrasable as: 'Jean is/will be oriented toward establishing some relation with ω via the action *eat breakfast*'.

- (606) Jean va déjeuner.
- (607) Jean ira déjeuner.

The precise type of relation established between Jean, a mobile, concrete entity, and the point ω is inferred from background and world knowledge. Since ω is not intrinsically spatial, but rather merely 'a point other than the (abstract) deictic center', sentence (606) allows more

¹⁰⁹ The cross-linguistic difference in choice of preposition (FOR/ON vs. EN, the latter of which takes a determinerless complement) is most likely attributable to semantic properties of the prepositions themselves. The explanation for this difference therefore goes beyond the scope of the present study.

than one construal. For example, if ω is interpreted as being a point in time, we obtain the 'future' use discussed in section 5.9 below. If it is taken to be a spatial point, we obtain a situation in which Jean establishes a relation with a location via the action 'eat breakfast'. Sentence (607), in which ALLER is in the future tense, rules out a 'future' reading of ALLER (due to the redundancy that such a reading would involve), so the most natural interpretation is one where ω is a point in space. And given our knowledge of the way mobile, concrete entities behave in the real world, the most natural way for such an entity to relate to a spatial point via an action is to perform that action at the spatial point in question. Thus, for (607) we obtain the 'progredience' reading, in which the subject's referent undergoes movement and then carries out the action denoted by the INF at the destination of this movement.

Note that this progredience reading, which involves a movement situation, is obtained for sentences like (606) and (607) despite the fact that they contain no element expressing localization at an end-point. This is because the action expressed by the INF, together with the fact that the subject refers to a volitional and self-propelled entity, provides sufficient information to narrow down the set of possible referents for ω : there are only a limited number of imaginable ways for such an entity to establish a relation with a point via an action, and spatial localization at such a point is one of these. In contrast, as seen earlier, when ALLER is followed by no complement (such as the destination complement in (609)) or adjunct (such as the INF in the progredience construction or *vite* in (610)) favoring a motion interpretation, the set of possibilities is too broad, and the sentence is unacceptable, as in (611).

- (609) Jean va au marché.
- (610) Jean va vite.
- (611) *Jean va.

As for English GO, when it is followed by an INF as in (612), this INF applies to GO's lexically encoded end relation (localization), and we once again obtain a progredience reading. However, because the formation of the complex event involved in progredience hinges on the INF's expressing a "verbal virtuality" (Damourette and Pichon, 1911-1950,

#1055, as cited by Bouchard, 1995, p. 130) and thus on non-effective reference of the end-relation (Bouchard, 1995, p. 135), progredience becomes impossible when GO has a locative complement, for the latter specifies L and thus forces effective reference of this end relation (example (613))¹¹⁰. In contrast, the presence of a locative complement in the case of ALLER does not force effective reference of a localization component, since ALLER contains no such component. Thus, the acceptability of progredience is not affected by the presence of a locative, as shown in (614).

- (612) John will go eat breakfast.
- (613) *John will go to the restaurant eat breakfast.
- (614) Jean ira au restaurant manger un gros déjeuner.

Since in the progredience construction the INF describing a "verbal virtuality" directly bears on a subpart of GO/ALLER's meaning, realization of the motion event entails realization of the INF action. Thus, we cannot affirm the former while implying the negation of the latter.

- (615) *Jean ira dîner avec ses amis, mais il ne mangera rien.
- (616) *John will go dine with his friends, but he won't eat anything.

Finally, because progredience is based on the fusion of the two events into a single complex event, and because it is the bare INF form that appears in the English progredience construction (see section 4.2.1), the distributional restrictions of the latter also apply to the main verb GO. As a result, a progredience use is possible only when GO is itself in the bare infinitive form preceded by a modal (617) or future marker (617), or when it is in the imperative (619)¹¹¹. In all other contexts (e.g. (620) and (621)), progredience for GO is

¹¹⁰ The sentence *John will go eat at the restaurant* is, of course, fine, because the locative PP is syntactically dependent on the INF rather than on GO.

¹¹¹ Recall that I am assuming that the English bare INF and imperative – which are formally identical and which both express irrealis – are two functional manifestations of a single underlying grammatical element.

impossible. In contrast, since French INF has much broader distributional properties, no such constraint appears on the progredience use of ALLER (as shown in (622) through (624)).

- (617) John intends to/can/must/should/etc. go buy some bread. (Modal + INF)
- (618) John will go buy some bread. (Future)
- (619) Go buy some bread! (Imperative)
- (620) *John goes buy(s) some bread. (Present indicative)
- (621) *John went buy(bought) some bread. (Past indicative)
- (622) Jean va/est allé/ira acheter du pain. (Present/past/future indicative)
- (623) Va acheter du pain! (Imperative)
- (624) Il entend/peut/doit/devrait/etc. aller acheter du pain. (Modal + INF)

Before moving on, it should be noted that since the 'motion with purpose' reading hinges on our assumption that human motion is directed toward the realization of actions, it cannot be obtained if the subject is an inanimate entity, i.e. an element which is incapable of intention and whose movements through space cannot be considered to be directed at the accomplishment of a goal. Thus, while the basic motion sentence (625) is acceptable, the progredience sentence (626) is not (cf. Bouchard, 1995, p. 130-135, for an alternative account of the animacy constraint on progredience).

- (625) I don't want the ball to go over the fence.
- (626) *I don't want the ball to go hit the neighbor on the head.

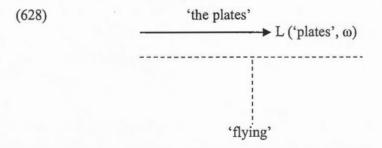
5.2.3 GO/ALLER + V-ing/en V-ant

I now turn to another possible way to use GO to express a 'motion + action' situation: the construction GO + V-ing. The asymmetry noted for COME and VENIR also applies to GO and ALLER: due to differences inherent in the English and French present participles, when used as modifiers of a verb, the ALLER + EN + V-ant construction has more restricted

interpretational possibilities than its English counterpart. I therefore discuss the two verbs in turn, starting with GO.

Because a present participle functions as a modifier, when it is adjoined to the verb GO it applies predicatively to GO's meaning. Crucially, a modifier can apply either to the whole meaning of its argument or to a subpart of the latter. When background and contextual knowledge favors an interpretation where V-ing applies to the whole meaning of GO, we obtain a 'manner-of-movement' reading, as in (627), whose meaning is schematized in (628). When, instead, context brings us to interpret the V-ing as applying to only a subpart of GO's meaning – namely, to the end-relation L (X, ω) – we obtain a reading in which the V-ing ascribes a property to X's localization at ω . Thus, in sentence (629), whose meaning is represented in (630), the resulting compositional meaning is: 'John underwent movement to a location other than the SC's location, and at that location, he undertook the action of fishing'. Furthermore, given our default assumption that volitional human movement is aimed at carrying out an action at the destination location, we infer that the action 'fishing' constitutes the purpose of the motion event being expressed. Thus, rather than a 'manner of motion' reading, sentence (629) receives a 'motion with purpose' reading.

(627) When the waiter tripped, the plates went flying.



(629) John went fishing yesterday.

As shown for COME, when context and/or background support both interpretational possibilities, the sentence is ambiguous, as in (631) and (632). The first reading is obtained if we interpret the *V-ing* as modifying GO's semantics as a whole, while the second reading results from interpreting *V-ing* as modifying only the end-relation L.

- (631) John went running (when he heard the explosion nearby). ('manner of movement')
- (632) John went running (at the park in order to get some exercise). ('motion with purpose')

The 'motion with purpose' use exhibits several constraints, all of which follow from the interaction between the *V-ing* modifier and GO's L component. First, since the motion event and the action event form a complex event, it is impossible to affirm one while implying the negation of the other.

(633) *John went jogging yesterday, but due to the rain, he ended up not running at all.

In addition, as shown above (section 4.2.1), when the localization relation L is specified via an explicit locative complement, L has effective reference, which prevents the "fusion" of the two verbs' meanings into a single complex event, a condition required to obtain the 'motion with purpose' reading. Thus, while (634) is ambiguous between a 'manner of movement' and a 'motion with purpose' reading, the addition of a locative complement of GO in (635) makes the sentence incompatible with a 'motion with purpose' reading. This further explains why (636) is odd: according to our world knowledge, 'fishing' is not construable as a manner of movement. When the locative is dependent on the V-ing rather than on GO, as in (637), the sentence is fully acceptable, for in this case the complement provides information about the action 'fishing' rather than directly specifying the reference of GO's semantic component L. The fact that we interpret this locative as specifying the destination of the movement itself is the result of inference: if 'fishing' takes place at the location 'at the lake', and 'fishing' modifies the end-relation L expressed in GO's meaning, we infer that the location 'at the lake' is identical to the destination of the movement event. Crucially, this knowledge is not the result of a direct structural relation between the complement at the lake and GO's component L, so no element in the sentence forces effective reference of L.

- (634) John went running. (Ambiguous: The action 'running' is the manner of John's movement vs. the action 'running occurs at the destination of John's movement.)
- (635) John went to the park running. ('manner of movement' only)
- (636) ?? John went to the lake fishing.
- (637) John went fishing at the lake.

Furthermore, since the 'motion with purpose' reading results from *V-ing* modifying GO's end-relation L, *V-ing* can constitute an acceptable answer to a where-question, a question which normally calls for an answer consisting of a location.

(638) -A: Where did Mary go?

-B: Shopping/jogging/etc.

Although the 'motion with purpose' reading results from *V-ing* modifying L rather than the entire semantic content of GO, this modifier nonetheless applies to a subpart of the motion event. Thus, the present participle must itself describe an action that involves some kind of internal change of location, as in (639). If the participle is a verb that expresses no internal movement, it is incongruous as a modifier of a subpart of the motion event, so the verbs in (640) are unacceptable. In example (641), the participle verb *drinking*, although not intrinsically encoding change of location, is nonetheless compatible with a change-of-location construal (i.e. John visited more than one bar), so the sentence is acceptable.

- (639) John went running/swimming/fishing/shopping/hunting/apple-picking/dancing/bowling/ice-skating.
- (640) *John went playing chess/standing at the corner/reading a book.
- (641) John went drinking last night.

In contrast, the progredience construction is compatible both with movement actions (642) and non-movement actions (643). This is because unlike the present participle, which expresses a process and thus necessarily applies to part of the GO-event itself, the INF carries no aspectual properties. Hence, unlike the present participle, the INF adjunct can describe the end-state resulting from the movement event.

- (642) John will go run (at the park)/swim (at the pool)/fish (at the lake)/shop (downtown).
- (643) John will go play chess/stand at the corner/read a book/drink at his favorite bar.

Turning now to ALLER, we find two differences with respect to the GO + V-ing construction. First, whereas GO contains localization and therefore requires no locative complement, ALLER contains no localization and therefore requires the presence of a locative complement in order to explicitly identify the destination of the orientation and thus bring about the necessary conditions for a motion construal. Thus, while (644) is acceptable, its direct translation in (645) is not. The same observation holds for (646) and (647).

- (644) John went running.
- (645) *Jean est allé en courant.
- (646) The plates went flying.
- (647) *Les assiettes sont allées en volant.

A second difference follows from a grammatical asymmetry between English and French. As we saw in examples (273) and (275) (section 4.2.2), when the French present participle (the "gérondif") is used to modify a verb rather than a whole clause, it is preceded by EN. Since the latter expresses containment, a relation that is temporally equivalent to simultaneity, the construction EN + V-ant necessarily expresses a situation in which the main verb event is contained within the temporal boundaries of the event expressed by the participle verb. In other words, given the semantic properties of the French "gérondif" construction, while EN V-ant can be interpreted as applying to the whole of ALLER's meaning, it cannot be interpreted as applying only to a subpart of the event described by ALLER. Hence, ALLER + EN + V-ant can be used with a 'manner of movement' reading, as in (648), but not with a 'motion with purpose' reading, as in (649).

- (648) Jean est allé à l'école en courant.
- (649) *Jean est allé au lac en pêchant.

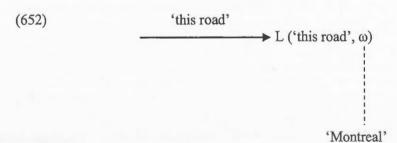
To conclude, in the present section I have shown that while both GO and ALLER can express 'motion + action', they differ in the way they accomplish this and in the constraints that

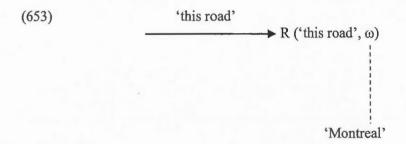
apply. On the one hand, both verbs can be linked to a second verb expressing an action using an explicit connector such as an element expressing purpose (TO/POUR) or a coordinating conjunction (AND/ET). On the other hand, while both verbs can express 'motion with purpose' via a progredience construction, due to the difference in semantics between these two verbs (i.e. nature of the end relation) GO is subject to restrictions that do not apply to ALLER. Finally, these verbs show two main differences with respect to the expression of 'motion + action' using a present participle. First, while GO requires no locative complement (and indeed is incompatible with such a complement in the 'motion with purpose' use), ALLER requires such a complement due to the absence of a localization component in its own semantic structure. Second, because the element EN in the French present participle construction imposes a temporal containment relation on the sentence (in which the main verb event is contained with the bounds of the participle verb event), ALLER, like GO, can express 'manner of movement', while only GO can be used with a present participle to express 'motion with a purpose'.

5.3 Static spatial extension

When the referent of GO/ALLER's subject is a mobile concrete entity, the most natural reading is a motion situation. However, when the subject's referent is a concrete entity that is immobile and possesses considerable extent/length in space, the most natural construal of the orientation is a static one rather than a dynamic one. The compositional meaning obtained for sentences (650) and (651) is schematized in (652) and (653), respectively.

- (650) Cette route va à Montréal.
- (651) This road goes to Montreal.





In these sentences, the locative PP TO/ \dot{A} -Montreal specifies the end relation component in GO/ALLER's meaning. The noun Montreal is taken to specify the reference of the constant ω , leading us to construe the latter as a location in space. Moreover, since ω is 'a point other than the deictic center', and since the spatially construed deictic center refers to the location occupied by a Subject of Consciousness, Montreal is identified as being a location other than the location of the SC. Finally, given world knowledge about the properties of roads – namely, the fact that they are immobile and possess considerable spatial extent – the most natural interpretation for these sentences is: 'This road extends through space to the city of Montreal, a location that is distinct from the location of an SC (e.g. the speaker or hearer)'.

Just as ALLER's lack of a localization component prevents it from expressing movement without an explicit complement or modifier to supply the notion of localization or another property of movement (as shown in (654)), we find the same impossibility for the static spatial extension use when ALLER is followed by no complement (655).

- (654) *Je vois une voiture qui va.
- (655) *Cette route va.

In addition, under the assumption that the phenomenon of static spatial extension is less salient in human experience than movement, we can expect the 'static spatial extent' use to require greater support from contextual or background knowledge in order to be obtained than is the case for a 'motion' reading. Thus, as we saw for COME, GO cannot receive a static spatial extension reading when there is no destination complement, while the absence of such a complement does not prevent us from arriving at a motion reading.

- (656) *This road comes/goes.
- (657) That car is coming/going.

Unlike VENIR and COME, verbs for which the presence of a source-phrase suffices to obtain the spatial extension use, the inclusion of such a complement alone does not allow us to obtain this sense for GO and ALLER, as shown in (658) and (659). This is due to the difference in the nature of the constant contained in these verbs with respect to COME and VENIR. The deictic center, 'a point that is accessible to a Subject of Consciousness', is much narrower in its set of potential referents than is its complement ω , defined as 'any point other than the deictic center'.

- (658) *This road goes from Montreal.
- (659) *Cette route va de Montréal.

On the other hand, a phrase supplying the notion of path (a salient property of immobile entities which have considerable extent in space, such as roads) compensates for the absence of a destination PP for GO, as shown in (660). In contrast with this, since ALLER contains no end-localization component and thus does not imply a starting point (a notion needed to obtain a static spatial extension reading, as shown in section 4.3), even the inclusion of a path phrase is insufficient to produce a fully acceptable 'spatial extension' sentence, as shown in (661).

- (660) The road goes through the forest.
- (661) ??La route va à travers la forêt.

When the subject refers to an entity that possesses considerable extent along more than one dimension (i.e. X is not just long but also wide), this makes it more difficult to construe the entity's extent in space in terms of orientation along a single axis. As a result, the 'static spatial extension' reading is more difficult to obtain for this kind of subject, as shown in examples (662) and (664). This difficulty can be overcome, however, if a limit expression

such as ALL THE WAY or JUSQUE is added, for the notion of 'limit' provides extra support for the notion of end-point that is central to the 'static spatial extension' use (examples (663) and (665))¹¹².

- (662) ?His land goes to the river.
- (663) His land goes all the way to the river.
- (664) *Son terrain va à la rivière.
- (665) Son terrain va jusqu'à la rivière.

When the subject of GO refers not to an entity with spatial extent, but rather to an aperture such as a door, we obtain a reading of 'spatial access' rather 'spatial extension'. For a sentence like (666), world knowledge of the subject's referent tells us that one of its salient properties is to provide physical access to a space, and the most natural way for an aperture such as a door to be oriented toward a localization relation with a space is to be physically contiguous to it. The complement to the cellar/balcony identifies this space, and the constant ω further indicates that it is a location other than the location of the Subject of Consciousness. We infer from this deictic information that the location in question is *inaccessible* to the SC at the time of speech. Putting this information together, we obtain an overall meaning paraphrasable as: 'This door, by being contiguous with the cellar/balcony, can provide the SC with access to that space'. Note, however, that this use relies to a greater degree on inference than the more direct 'spatial extension' use illustrated above: we can derive 'spatial extension' more directly from the notion of abstract orientation than we can 'providing spatial access'. Consequently the verb ALLER, which does not imply source localization and thus requires richer context in order to describe a static spatial situation, cannot be used to express 'spatial access', as shown in (667).

¹¹² For a slightly different analysis of these facts, cf Lamarche (1998, p. 62).

- (666) That door goes to the cellar/balcony.
- (667) *Cette porte va au/sur le balcon/sous-sol.

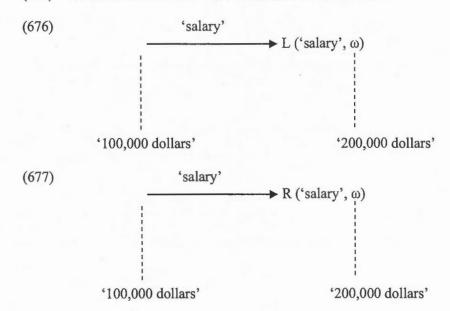
Since the 'static spatial extension' use of GO and ALLER relies on the static character of the entities involved in the situation, this reading cannot be obtained when the complement PP refers to a mobile entity such as a human (examples (668) and (669)). In addition, whereas the French inalienable dative construction makes it possible to define the relevant search domain as the body and thus to use a part of the body as the endpoint of the static orientation, this use is impossible for ALLER. This contrast is illustrated in (670) (a sentence that is acceptable for at least some speakers) and (671). Even the addition of an explicit lexical item indicating measure, which guarantees acceptability for VENIR, does not help with ALLER (examples (672) and (673)). This is because ALLER contains the anti-deictic center ω, defined as 'a point other than the deictic center'. Since the deictic center is 'a point that is accessible to the SC', use of ALLER in this context depicts the end-point of the static spatial extension as inaccessible to the SC. In the context of this use, the dative pronoun, by defining the search domain for the referent of the end-point PP, identifies the person in question as the relevant SC, and we thus obtain a contradictory situation: X's extension is defined with respect to the SC's body but also depicted as inaccessible to this SC. In other words, the situation is depicted simultaneously from the SC's perspective and from a perspective other than the SC's, and this contradiction results in the unacceptability seen in (673).

- (668) *The road/sidewalk/rug goes from/to John.
- (669) *La route/le trottoir/le tapis va de/à Jean.
- (670) (?) Jean me vient à l'épaule.
- (671) *Jean lui va à l'épaule.
- (672) Son col venait à la hauteur de ses oreilles. (Grand Robert de la langue française)
- (673) *Son col allait à la hauteur de ses oreilles.

5.4 Abstract extent

I now turn to the 'abstract extent' class of senses. As pointed out earlier (see section 3.1), magnitude is a domain-independent concept (Walsh, 2003; Bueti and Walsh, 2009), and the orientation component in the semantics of GO and ALLER is based on this notion of magnitude (via the concept 'more and more'). This leads to the correct prediction that verbs like GO/ALLER can be used to describe extent not only in space, but also in abstract domains. When the subject of GO or ALLER is an entity that possesses quantifiable extent in some abstract domain, we obtain a sense expressing abstract extent rather than spatial extent. For example, in (674) and (675), the subject salaries/salaires refers to an abstract, quantifiable entity, and the PP complements identify the source point and end-point of the orientation as being specific amounts of money. Combining these arguments with the semantic representations of GO and ALLER, we obtain the meanings schematized in (676) and (677), respectively.

- (674) The salaries of executives go from 100,000 to 200,000 dollars.
- (675) Les salaires des cadres vont de 100,000 à 200,000 dollars.



These sentences express that the entity 'salary' has an orientation between two points, both of which are amounts of money. According to our extra-linguistic conceptualization of magnitude, amounts are naturally oriented from lesser to greater, a fact that is compatible with the orientation expressed in these sentences (where the end point is of greater magnitude than the source point). Given that the tense is the simple present (expressing a state rather than an event), this orientation is interpreted as static extension between two points along the axis of monetary amount. We thus interpret these sentences as characterizing the range within which the value of the subject's referent ('salaries') varies: the source phrase from/de 100,000 dollars and the end-point phrase to/à 200,000 dollars express the lower and upper boundaries of a range in the domain of monetary amounts, and this range is predicated of the subject salaries. The sentence thus expresses that 'the salaries of executives vary within a range whose bottom and top limits are 100,000 and 200,000 dollars, respectively'.

The nature of the entities involved determines the precise abstract domain within which we construe the orientation expressed by GO and ALLER. For example, when the arguments are temporal, the orientation between two points is interpreted along the axis of time and we obtain the 'temporal extent' reading illustrated in (678) and (679). Likewise, if the arguments

are elements lying along a scale of intensity, such as symptoms, we obtain a 'range of intensity' reading as in (680) and (681).

- (678) The period going from 1939 to 1945...
- (679) La période allant de 1939 à 1945...
- (680) Symptoms (can) go from very mild fever to severe pain.
- (681) Les symptômes peuvent aller/vont d'une très légère fièvre à des douleurs intenses.

The notion of a range along some axis of magnitude depends crucially on the idea of a lower and an upper limit, two delimiting points on this axis which serve to define the range. In examples (674) to (681) above, the notions of both source and end-point are explicitly provided by PP complements. But when only a TO/À-phrase (examples (682) to (687)) or only a FROM/DE source-phrase (examples (688) to (693)) is present, the information present in the sentence is insufficient to obtain such a reading.

- (682) *The salaries of executives go from 100,000 dollars.
- (683) *Les salaires des cadres vont de 100,000 dollars.
- (684) *The period going from 1939
- (685) *La période allant de 1939
- (686) *Symptoms (can) go from very mild fever.
- (687) *Les symptômes peuvent aller/vont d'une très légère fièvre.
- (688) *The salaries of executives to 200,000 dollars.
- (689) *Les salaires des cadres vont à 200,000 dollars.
- (690) *The period going to 1945
- (691) *La période allant à 1945
- (692) *Symptoms (can) go to severe pain.
- (693) *Les symptômes peuvent aller/vont à des douleurs intenses.

In such cases, additional contextual material is required in order to obtain a situation of abstract extent. This can be done by including a term explicitly providing the notion of extent (e.g. FARTHER, PLUS LOIN) or the related notion 'limit' (e.g. UP TO, JUSQU'À, AU DELÀ DE), as in the following. This additional information compensates for the absence of a phrase identifying the lower bound of the range by placing emphasis on the other value's status as upper limit of the range.

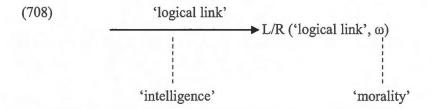
- (694) The price of gas can go up to three dollars here.
- (695) Le prix de l'essence peut aller jusqu'à trois dollars ici.
- (696) Our records do not go farther than the early nineteenth century.
- (697) Nos documents ne vont pas plus loin que le début du XIX siècle.
- (698) The differences between them go further than is commonly believed. (Webster's Third International)
- (699) Les différences entre eux vont plus loin que ce que l'on suppose habituellement.
- (700) La folie de celui-ci (...) va parfois **jusqu'à** vouloir être battu... (Molière, cited in the Grand Robert de la langue française)
- (701) Dans ces temps-là, un roi ne quittait jamais sa demeure; ses excursions n'allaient pas au delà d'une partie de chasse... (De Las Cases, cited in the Trésor de la langue française)

French possesses the construction DANS LES (shown in (702)) expressing the notion of approximate value or amount, a meaning resulting from the combination of the 'container' relation expressed by DANS with the notion of 'range' expressed by the plural determiner LES: the expression indicates that a given value on a scale lies within a given range. The notion 'approximate amount' comes from placing the magnitude within a range rather than situating it at a point. Predictably, since this expression contributes the notion of range, it can be combined with ALLER to obtain an 'abstract extent' reading without the elements normally necessary to obtain a range situation, as evidenced by the acceptability of (703). On the other hand, English has no direct equivalent to this construction (as shown in (704)), and it is thus impossible to construct a sentence with GO (705) equivalent to ALLER's use in (703).

- (702) L'arbre mesure dans les trois mètres.
- (703) Que gagne votre fille avec ses leçons? (...) Justement elle [la mère] était en train d'examiner leurs petits comptes. Cette année, ça irait dans les quatre mille francs. (Daudet, cited in the Trésor de la langue française)
- (704) *The tree measures in the three metres.
- (705) *This year, her lessons will go in the four thousands francs.

In all of the uses discussed so far in the present section, the orientation in the semantics of GO and ALLER is taken to refer to the entity's orientation along a relevant abstract dimension, and the source and destination complements refer to limits along this dimension, yielding the notion of 'extent'. However, the latter notion is not attributable to the semantics of the verbs themselves, but rather to knowledge about the entities involved. When the subject's abstract referent has no quantifiable extent but instead merely constitutes an oriented relation between two abstract points, GO/ALLER's orientation can be used to refer to this relation, as in (706) and (707) (schematized together in (708)), where a source and destination phrase specify the beginning and end-points of the relation.

- (706) What is the logical link that goes from intelligence to morality?
- (707) Quel est le lien logique qui va de l'intelligence à la moralité?



Likewise, any ordered series – by virtue of being ordered – necessarily possesses an orientation. Hence, in (709) and (710), the FROM/DE- and TO/Å-phrases are taken to refer to the *first* and *last* elements of the series, respectively. In (711) and (712) we infer from our knowledge of how deals work in the real world that GO/ALLER describe the oriented relation that holds between the people involved in the deal. In particular, the modifier *only one way/dans un sens seulement* provides information about how the orientation of the favors: only one party involved provides favors for the other (i.e. the deal is oriented in only

one direction). Finally, even thoughts are relational and can be viewed as oriented, namely, from the thinker to the object of thought. This accounts for the use illustrated in (713) and (714)¹¹³.

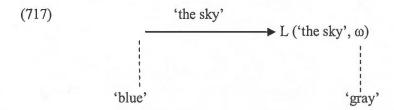
- (709) This logical series goes from the simplest of machines to the most complex.
- (710) Cette suite logique va des plus simples des machines aux plus sophistiquées.
- (711) He quickly realized that in this deal, the favors went only one way.
- (712) Il s'est vite rendu compte que dans cette entente, les faveurs allaient dans un sens seulement.
- (713) Our thoughts go to the inhabitants of that flooded village.
- (714) Nos pensées vont aux habitants de ce village inondé.

5.5 Change-of-state

In this section I discuss uses of GO and ALLER which express 'change of state', exemplified in (715) and (716). In these sentences, the subject refers to an entity and the source and endpoint phrases each refer to a state or property. The combination of these semantic elements yields the meaning schematized in (717) for sentence (715).

- (715) The sky was going from blue to gray as the clouds appeared.
- (716) Le ciel allait du bleu au gris à mesure que les nuages arrivaient.

¹¹³ The English sentence is preferable with the particle OUT following the verb. This is most likely because English, which makes heavy use of directional particles, prefers here to explicitly mark the contrast between the thoughts' containment within the mind and the fact that the objects of these thoughts exist outside the mind.



We infer from GO's intrinsic end-relation that the source relation is also one of localization. As pointed out in section 4.6, when the figure of the localization relation is an entity and the ground is a state or property, this relation is interpreted as ascribing the state or property to the entity in question. Use of a dynamic tense (here, the past progressive) favors a dynamic reading of the verb's meaning. The sentence thus expresses that 'the sky was oriented dynamically from being blue to being gray'. Consequently, for sentences of this type we most naturally interpret the orientation as a *change of state*: the subject undergoes a transition from having one property to having another property.

In the case of the French sentence (716) above, the content of the sentence differs from its English counterpart via ALLER's meaning: the latter expresses general relatedness (R) rather than localization. However, end-localization is supplied by the preposition À in the destination phrase, and the DE-phrase expresses a source point. Thus, (716) yields the same interpretation as its English counter-part: 'the sky *changed* from blue to gray'.

Since relations can also be subsumed under the class of states, we can also obtain a 'change of state' reading when the source and destination PPs refer to relations with abstract entities, as in the following sentences. Here, world knowledge of how music works allows us to fill in the details of the situation being referred to: melodies are made up of a temporal succession of tones, so if a melody undergoes a transition from a relation to one tone to a relation to another and does so at a certain *speed*, the most natural way to interpret this is that the tones make up the melody in question and that they follow one another in time when the melody is played.

- (718) The melody goes from one tone to another with surprising rapidity.
- (719) La mélodie va d'un ton à l'autre avec une rapidité surprenante.

Change of state necessarily involves at least two distinct states: an initial state and an end state. In the examples above, the sentence contains explicit mention of both of these via a source phrase and a destination phrase. However, when GO and ALLER are not followed by a FROM/DE-phrase, the initial state must be inferred. Since the end-state involves ω, 'a point other than o', an abstract transition to localization at ω is interpreted as transition to some state that is distinct from the deictic center. The end state must therefore be something that contrasts in a salient way with the deictic center, i.e. with states that are accessible to the Subject of Consciousness. One obvious way for a given state to be accessible to the experience of Subjects of Consciousness in general is for it to constitute the normal state of affairs¹¹⁴: that which is normal occurs much more frequently than that which is abnormal, and the former is thus much more accessible to our experience. For this reason, many end states that are compatible with COME/VENIR are incompatible with GO/ALLER because they do not contrast saliently with the normal state of affairs, as shown in the following.

¹¹⁴ Clark (1974, as cited by Gandour, 1978, p. 381) appears to be the first to have proposed the idea that the deictic center can be interpreted as an entity's "normal state". Di Meola (1994, p. 106-112) also discusses the role of the concept of normalcy in certain abstract uses of GO and German GEHEN.

- (720) John came/*went to the conclusion that Mary had been lying.
- (721) Jean en est venu/*allé à la conclusion que Marie lui avait menti.
- (722) The two political parties came/*went to an agreement.
- (723) Les deux partis politiques en sont venus/*allés à une entente.
- (724) To come/??go to the main topic of our discussion, I would now like to address the tuition hike.
- (725) Vous feriez mieux d'en venir/*aller tout de suite au sujet qui vous amène ici.

However, when the PP complement does refer to a state which contrasts strongly with the normal state of affairs, English GO becomes acceptable, as in sentences (726) through (732)¹¹⁵. This requirement of non-normalcy is made clear by the contrast between (726) and (733), the latter of which contains near-synonyms that lack the stark contrast with normalcy observed in the former.

The fact that the preposition selected here is IN(TO) rather than simply TO is most likely attributable to the fact that states are often treated as containers: John is in/*at a trance, The country is in/*at a recession, etc.

- (726) John went into a rage/a depression/ecstasy.
- (727) The driver lost control and the car went into a spin.
- (728) The building went to ruin.
- (729) The company went into bankruptcy.
- (730) The country went into a recession.
- (731) John went to sleep.
- (732) John went into a trance.
- (733) *John went into anger/sadness/happiness.

Since ALLER, like GO, describes orientation toward a relation with ω , one might expect it to be able to used in the same way to express transition to an abnormal state. However, as a verb-framing language, French shows a strong tendency to encode information about path and destination on the verb rather than on a preposition or particle (Talmy, 2000). Thus, to express the situations corresponding to the sentences above, French would most naturally use verbs such as ENTRER and TOMBER, as shown in (734) through (740). Nonetheless, some of these changes of state can be described with ALLER, though less naturally or less frequently than with the verbs shown here. For example, one can say se laisser aller dans un sommeil profond, aller à la ruine, aller à la faillite. This is evidence that ALLER is not semantically incompatible with changes of state, and that the real cause for its general unacceptability in the construction ALLER + STATE-PP shown in the examples below lies in the language's preference for expression of events like containment-entering directly on the verb itself.

- (734) Jean est entré/*allé dans une rage...
- (735) Jean est entré/tombé/a sombré/*est allé dans une dépression.
- (736) Jean est tombé/*allé en extase.
- (737) Jean est entré/*allé dans un sommeil profond/dans une transe.
- (738) L'édifice est tombé/*allé en ruine.
- (739) L'entreprise a fait faillite/est tombée/a sombré/?est allée en faillite.
- (740) Le pays est entré/*allé dans une récession.

In the following sentences, the progressive tense (along with locative expressions indicating a tendency rather than the reaching of a limit) brings us to construe GO's orientation not as an effective transition from one state to another (and thus an actualization of the end state), but rather as a *potential* to be in the end state: the latter is depicted as non-effective. Crucially, in such a context emphasis is not placed on the establishment of a relation with a state that is inaccessible to the SC. As a result, the constraint requiring that the complement PP of GO describe a state that contrasts strongly with the normal state of affairs disappears in sentences like these. For this same reason, ALLER is also acceptable in this use.

- (741) Many industries have been forced to cut jobs and it looks like the electronics industry is going the same way/in the same direction. (Longman)
- (742) Beaucoup d'industries ont dû coupé des emplois, et l'industrie de l'électronique semble aller dans le même sens/dans la même direction.
- (743) The government says it wants to avoid a crisis, but that is exactly where we are going.
- (744) Le gouvernement dit vouloir éviter une nouvelle crise, mais c'est bien vers là que nous allons.
- (745) She offered wondered where she was going in life.
- (746) Elle se demandait souvent où elle allait dans la vie.

In addition, a tendency can be associated with change of magnitude along an axis. As verbs expressing orientation (a notion derived from the general concept of magnitude), GO and

ALLER can express such a change in magnitude, provided that the axis itself can be determined based on context, and provided that an element of the sentence expresses the direction of the change (increase or decrease). However, given the contrasting properties of satellite-framing languages and verb-framing languages, GO and ALLER are not used to express change of magnitude in the same way. Verb-framing languages favor expression of directional information on the verb itself. Thus, if ALLER is combined with a present participle verb specifying the direction of change in magnitude, as in (747) through (749), we obtain a sentence expressing a gradual tendency of increase/decrease along the axis specified by the meaning of the *V-ant* and/or by context.

- (747) Le prix du carburant allait en croissant¹¹⁶.
- (748) L'activité du volcan va en diminuant.
- (749) La situation allait en s'empirant.

As shown elsewhere, ALLER generally resists being used without a complement since its semantic representation provides so little information about the end-state. But in the present case, the sentence contains sufficient information to identify the end-state: based on the change of magnitude expressed by the present participle and our knowledge of the subject's referent (an abstract quality or state associated with a scale of intensity), we infer that the end-point of the orientation is a value on the contextually provided scale of magnitude. Consequently, we do not need a PP or other locative identifying the end-relation with ω in ALLER's semantic representation.

In contrast to French, satellite-framing languages such as English favor the expression of directional information outside the verb, notably on prepositions and particles. Thus, using a verb to express directionality in combination with GO yields an effect of oddness, shown in (750) through (752). Instead, the notion of change of magnitude is most naturally expressed

¹¹⁶ Note that inclusion of EN before the verb depends on register: omission of EN corresponds to the formal/literary register (according to the *Trésor de la langue française*).

in English by combining a directional particle such as UP or DOWN with GO, as in (753) and (754).

- (750) *The price of fuel was going/went increasing/growing.
- (751) *The volcano's level of activity was going/went diminishing/decreasing.
- (752) *The situation was going/went worsening.
- (753) The price of fuel was going up.
- (754) The volcano's level of activity was going down.

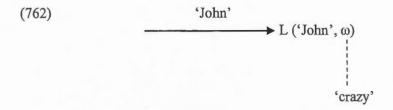
This difference between verb-framing and satellite-framing languages also accounts for the contrast illustrated in (755) and (756) below. In (755), a destination PP explicitly identifies the numerical limit of a change along the dimension of price. Since scales such as price are inherently oriented from small to large amounts, and since world knowledge about auctions indicates that one bid is always greater in amount than the previous bid, we infer that the change consists of increase, and the destination TO-PP is identified as the upper end-point of this increase. On the other hand, since French favors expression of directional notions such increase/decrease on the verb itself, the mere use of ALLER + À-PP as in (756) is inadequate to obtain a 'change of magnitude' reading. This situation can be expressed, however, if the notion of upper limit is explicitly supplied (JUSQU'À) or if ALLER is replaced by the verb MONTER (757), which always expresses 'increase' when applied to magnitudes.

- (755) The bidding went (up/all the way) to \$50 before the chair was sold.(Webster's Third New International)
- (756) Les enchères sont allées *à/jusqu'à 50 dollars avant que la chaise soit vendue.
- (757) Les enchères sont montées à 50 dollars avant que la chaise soit vendue.

Most of the 'change of state' uses discussed so far involve specification of the end-state through a prepositional phrase. However, since adjectives, like PPs, express states and properties, an adjective can be used with GO to express change of state, as in (758) through (761).

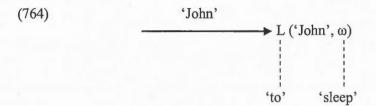
- (758) John went crazy.
- (759) John went red in the face when he heard the news.
- (760) John/that state has gone Republican.
- (761) The plane went invisible on the radar screen.

These sentences differ from the GO + PP uses illustrated above in how they express change of state, due to the way adjectives differ from prepositional phrases. In sentences like (758) through (761), the verb expresses that this subject (*John, that state, the plane*) is oriented toward being in a localization relation with the point ω . The adjective expresses a property or state ('crazy', 'red', 'Republican', 'invisible'). Adjectives cannot be applied as modifier to a verb's whole meaning, so when an adjective is adjoined to the verb GO, the only possibility is that it applies to some subpart of this verb's meaning. One might posit that the adjective's meaning links directly to ω , specifying the content of the anti-deictic center, as in the following representation.



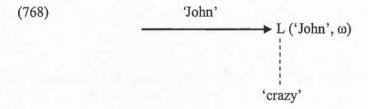
However, as seen earlier (section 4.7), this is not possible: the anti-deictic center ω is a point, and adjectives (which express properties and relations) are non-punctual and cannot therefore be co-referential with a point. In addition, when a noun specifies the reference of ω , it must be introduced by a preposition that links to the end-relation L and thereby establishes the noun's co-reference with ω as in sentence (763), represented in (764). The same applies to an adjective used as a noun, as in (765). Consequently, in order for an ADJ to specify the reference of ω , it would need to be introduced by a preposition. But as we see in (766) and (767), the GO + ADJ sentences become unacceptable if we add a preposition.

(763) Jean went to sleep.



- (765) The sky was going from blue to grey...
- (766) *John went to crazy/to red in the face/to Republican.
- (767) *The plane went to invisible.

Thus, in sentences (758) through (761) above, the adjective does not specify the reference of the anti-deictic center ω . Instead, it identifies the content of a predicative element of GO's meaning: the end relation L, as shown in the representation (768). Thus, in sentences (758) through (761) above, the ADJ indicates in what way X is anchored at ω at the end of the change. These sentences thus express a change of state that results in the entity having the property denoted by the ADJ. They can therefore by paraphrased as follows: 'John is oriented toward having the property of being crazy/red/Republican/etc.'.



The element ω itself has the intrinsic meaning 'a point other than the deictic center', and the deictic center in turn means 'a point that is accessible to a Subject of Consciousness'. The end-state of the change described in these sentences is therefore somehow distinct from a state that is accessible to an SC. The specific way in which the end state establishes contrast with the unmentioned deictic center is determined by our world knowledge of the property itself. For example, in (758) the ADJ CRAZY describes a state that contrasts saliently with

normalcy¹¹⁷. Recall that 'the normal state of affairs' is, by virtue of the frequency and likelihood of occurrence of the normal, *accessible* to Subjects of Consciousness in general: an SC is much more likely to experience something if it corresponds to the normal state of affairs than if it is exceptional or abnormal. Hence, the unmentioned deictic center in this example is interpreted as 'normalcy', and the anti-deictic center in GO's meaning is construed accordingly as 'non-normalcy'. The same interpretation of ω is obtained for sentences (759) and (760). In (759), redness of the face is exceptional, and this exceptional quality is responsible for a further inference supported by world knowledge: John is manifesting an intense emotion such as anger or nervousness. In (760), association of the ADJ Republican with ω leads to the inference that the entity's normal/default condition is that of being non-Republican. Likewise, in (769) through (773) below, world knowledge allows us to identify the initial, default state or property as lack of technology (769), being restricted to a single country or region (770), being off the air (771), being part of a musical group (772), and being drinkable (773).

- (769) Our university decided to go high-tech this year.
- (770) The company is going global.
- (771) (In the context of a radio show) Everyone quiet on the set, we're about to go live!
- (772) The singer has finally decided to go solo.
- (773) The milk in the fridge has gone sour.

As the following sentences show, other construals of the anti-deictic center are possible based on the ADJ's semantics. In (774), the adjective EXTINCT brings us to interpret ω as non-existence (in opposition to an implied deictic center construed as 'existence', see section 4.4). In (775), the adjective INVISIBLE specifies that the plane's change to inaccessibility takes the form of visual inaccessibility.

¹¹⁷ Di Meola (1994, p. 106-111) discusses the role of normalcy in this use of German GEHEN and English GO, but as elsewhere, he considers it metaphorically derived from motion.

- (774) This species is going extinct.
- (775) The plane went invisible.

When the situation described by the sentence involves change to a state that is somehow incompatible with the content of ω , the result is at best marginal acceptability. For example, despite the fact that both sentences involve the same property ('red'), (776) is fine but (777) is strange. This is due to extra-linguistic knowledge of the entities involved: for a human to be red in the face is an exceptional quality (and thus one that is compatible with ω), while a traffic light's turning red is perfectly unexceptional. Likewise, while the sentence *John went mad* is fine when the ADJ is interpreted as meaning 'crazy', it is odd when the ADJ is interpreted as meaning 'angry', as shown by the marginality of the paraphrase in (778). Once again, this is because madness contrasts strongly with the normal state of affairs and thus is compatible with ω 's 'non-normalcy' construal, while anger is viewed as a banal psychological state, making it conflict with the non-normalcy implied by the anti-deictic center.

- (776) John went red in the face.
- (777) ?The traffic light went red.
- (778) ??John went angry when we told him the news.

Recall that the possibility of deriving a situation of 'transition' or 'change of state' from GO's meaning hinges on the notion of anchoring at an end-point, the latter being provided by GO's localization component. Since the French verb ALLER lacks this component, it cannot be used to describe change of state without the preposition À (which expresses localization) or a directional element expressing tendency towards a state. Thus, when we use ALLER with an ADJ as in the English examples examined above, the result is unacceptability, for no element in the sentence provides the notion of end-point localization from which to derive the notion of end-state.

- (779) *Jean est allé fou.
- (780) *Jean est allé républicain.
- (781) *L'avion est allé invisible.
- (782) *Le chanteur a décidé d'aller solo.
- (783) *La compagnie est allée globale.

5.6 Possession

We saw in the preceding section that when the subject of GO and ALLER refers to an entity and the PP destination complement refers to an abstract element such as a state or property, the end relation with ω is interpreted as a state, and we thus obtain a 'change of state' reading. When the PP complement refers instead to a person, as in (784) and (785), world knowledge of the entities involved leads to a different interpretation of the end-relation and thus of the situation as a whole. The compositional meaning of these sentences is schematized in (786).

- (784) The relief funds went to the people who needed it the most.
- (785) Les fonds de secours sont allés à ceux qui en avaient le plus grand besoin.

As shown in (786), these sentences express an orientation of 'funds' toward a localization relation (expressed intrinsically by GO in (784) and provided by À in (785)) with 'people'. Here, the subject refers to an amount of money, an entity which, according to our world knowledge, has the salient property of commonly undergoing transfer of possession from one person to another. The complement is a PP referring to a person or group of people. Based on our knowledge of how money and people interact in the real world, the most natural way to interpret the end relation is as one of *possession*. Consequently, the orientation component in

GO/ALLER's meaning is interpreted as *transfer of possession*, and the sentence thus receives a reading describing the acquisition of an entity (in the present case, money) by a person.

In the domain of space, a person, qua mobile entity, is inappropriate as the ground of a localization relation, as shown in (787). In contrast, in an abstract domain like possession, an expression referring to a person is perfectly suitable as a ground, since in this domain a person satisfies the criterion of stability (788).

- (787) Où est le livre? -* À Jean.
- (788) \hat{A} qui appartient ce livre? $-\hat{A}$ Jean¹¹⁸.

In a sentence favoring a 'transfer of possession' reading, our background and world knowledge supplies the details about the type of transfer involved. Thus, in (784) and (785) above, elements of context (relief funds/fonds de secours as well as need/en avoir besoin) lead us to infer that the transfer is one of giving. In contrast, in sentences (789) and (790) elements of context (e.g. to the eldest son/au fils ainé) indicate that the transfer of possession involves members of a family. Since the transfer of possession of money or objects within a family most typically takes the form of inheritance, the most natural interpretation of these sentences is that person referred to by the complement acquires the subject's referent by inheriting it. Note that even when the source of the transfer is not mentioned, there is an implied initial state (based solely on world knowledge): the object was initially in the possession of another member of the same family. However, inheritance does not necessarily take place within a family. This is reflected in (791) and (792), where sentential/discursive material indicates that the destination of the transfer is someone outside the initial possessor's family (e.g. the creditors, les pauvres).

¹¹⁸ Although the English stative localizer AT, unlike À, does not have a possession use (*This book is at John), we do observe TO in contexts of transfer of possession: I gave/bequethed/lent/sold the book to John. Indeed, TO can express transfer of possession without an accompanying verb, as on the label of a gift (To Mary). Thus, the absence of a possession use for AT is not counter-evidence against the idea that a person is a suitable ground for localization in an abstract domain like possession.

- (789) The farm went to the eldest son. (Webster Third New International)
- (790) L'héritage ira au fils ainé.
- (791) Nearly all the estate went to the creditors of the deceased. (Webster's Third International)
- (792) La tante, fidèle à l'idée fixe de toute sa vie, laissait son million à leur premier né, avec la jouissance de la rente aux parents jusqu'à leur mort. Si le jeune ménage n'avait pas d'héritier avant trois ans, cette fortune irait aux pauvres. (Maupassant, cited in the Trésor de la langue française)

Because in these 'transfer of possession' uses the possessed entity itself plays the grammatical role of subject (a function associated with the semantic role of agent and thus with the notion of control) and the receiver takes the form of a destination PP, the latter participant is depicted as playing a passive role in the event. Accordingly, when world knowledge indicates that the transfer is of a type typically governed by the volition of the receiver, GO and ALLER are inappropriate to express transfer of possession.

- (793) *The diamonds went to the thief. (Intended meaning: 'The thief stole the diamonds.')
- (794) *Les diamants sont allés au voleur.
- (795) *A loaf of bread went to John at the grocery store. (Intended meaning: 'John bought a loaf of bread at the grocery store.')
- (796) *Un pain est allé à Jean à l'épicerie.

Thus, given the intrinsic semantic content of GO and ALLER, in order for these verbs to be appropriate to describe transfer of possession, the transfer situation must be largely independent of the receiver's will or control. As illustrated above, situations such as 'giving/donation' and 'inheritance' satisfy this requirement. Another transfer of possession situation that is compatible with this idea is one involving a reward in a competition, exemplified by sentences (797) through (800), in which the subject refers to a reward (e.g. a prize, a job, an honor of some sort) and in which background/world knowledge about this reward indicates that it is attributed via a competition. In these sentences, although obtaining the entity in question involves willful effort on the part of the receiver, crucially the outcome of the contest is primarily determined by the wills of other individuals. Similarly, in (801)

and (802), which describe an election situation, background knowledge about the subject ('vote') tells us that the receiver (at least in the context of fair elections) is not the agent determining the orientation of the vote's attribution.

- (797) The top prize went to a twenty-four-year-old sculptor. (Oxford Dictionary of English)
- (798) Le grand prix est allé à un film indépendant cette année.
- (799) The job went to Mr. Martin.
- (800) Le poste est allé à M. Martin.
- (801) My vote will go to the socialist candidate.
- (802) Mon vote ira au candidat socialiste.

As shown in (795) and (796) above, since selling and buying are typically viewed as involving the receiver's willful control to a large degree, they are also typically incompatible with the semantics of GO and ALLER. However, when context and world knowledge provide information that brings us to construe the selling/buying event as involving competition, the sentence is acceptable. This is illustrated in (803) and (804), which involve an auction setting in which buyers are competing for the same item. In this context, competition limits each individual buyer's power to determine the outcome of the situation.

- (803) The jewels will go to the highest bidder. (Longman)
- (804) Les bijoux iront à la personne qui fait l'offre la plus élevée.

Finally, although omission of the destination complement referring to the receiver deprives us of the necessary information to arrive at a 'transfer of possession' use ((805) and (806)), sufficient information can be provided by an element of context other than a destination PP, leading to an acceptable 'transfer of possession' reading of GO in (807) and (809). In this case, the FOR-complement specifies an amount of money, thus indicating that the transfer is a commercial transaction; since all commercial transactions result in change of possession, we infer that the end-localization relation – L('the house', ω) – refers to possession of 'the house' by some new owner. But since ALLER does not contain end localization, there is no

intrinsic component from which to derive the notion of new possessor, and hence sentences (808) and (810) semantically incomplete.

- (805) *The house went. (Intended meaning: 'The house was sold to someone.')
- (806) *La maison est allée.
- (807) A house like this would go for 250,000 dollars. (Longman)
- (808) *Cette maison irait pour 250,000 dollars.
- (809) Many items at the auction went for less than their true value. (Webster's Third New International)
- (810) *La plupart de la marchandise est allée vite.

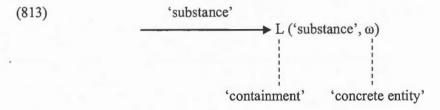
5.7 Resource/contribution

In the present section I discuss GO's uses which deal with the notions 'resource' and 'contribution', showing that they are not possible for ALLER due to its difference in semantics with respect to GO. In the previous section, we saw that a 'transfer of possession' reading emerges when the subject refers to an inanimate, possessable entity and when a destination PP identifies the end localization relation as involving a person. If, instead, the destination PP refers to an inanimate entity, as in (811) and (812), we obtain a different situation.

- (811) 70% of all antibiotics go into animal feed. (Corpus)
- (812) The budget doesn't say what would replace ... the copper-nickel alloy that goes into the nickel. (Corpus)

Here, world knowledge about the entities involved indicates that the end-relation cannot be one of possession: the inanimate entity referred to by the PP complement ('animal feed', 'the nickel (i.e. a coin') cannot be said to *possess* the referent of the subject ('antibiotics', 'copper-nickel alloy'), for possession involves only humans. Moreover, the preposition in these sentences IN (of INTO) expresses a *containment* relation. In both sentences the subject refers to a substance and the INTO complement-PP refers to a concrete entity. This results in

the following compositional meaning: 'Substance X is oriented toward being contained in concrete entity ω ', as illustrated in (813).



In our experience of the world, artifacts such as these come into being through a process of combination of different materials and substances, resulting in the substances/materials being part of the artifact. This leads us to interpret the highly general 'containment' relation expressed by IN as a 'part-whole' relation. That 'containment' can be construed as 'part-whole' independently of the use under discussion is shown in examples such as (814) and (815).

- (814) Do you know how much salt is in that food you are eating?
- (815) This food contains genetically modified vegetables.

Moreover, world knowledge tells us that by being an ingredient/component of an artifact, a substance/material contributes to the existence of that artifact. However, despite this notion of a formative process leading up to the artifact's existence and to the part-whole relation, the generic present tense in the sentence indicates that the orientation holds at all points in time. Consequently, we construe the sentence as describing a stable property rather than a process. This results in the following situational meaning: 'substance X (antibiotics, alloy) is an ingredient/component of artifact ω (animal feed, nickel)'.

Like GO's semantic content, the notion of containment is abstract and domain-independent, as evidenced by the numerous non-spatial uses of containment words such as those in (816) through (820). Thus, when the arguments of GO are abstract elements such as actions, we can use it to express the establishment of an abstract containment relation, as in (821) and (822). Once again, the relations expressed in the sentence, in combination with extra-linguistic knowledge of the arguments, suggest a process resulting in a containment relation between two elements (the subject X and the constant ω). Likewise, we infer from world knowledge

that when an action (e.g. effort) is part of another action (e.g. the production of a play, making an operation successful), the former contributes to the existence/realization of the latter. Note that in (822), the tense is not generic, so GO's orientation is construed here as an event rather than as a stable property.

- (816) In five minutes, class is over.
- (817) I didn't mean it in that sense.
- (818) We are entering a new era.
- (819) She entered a state of hypnosis.
- (820) That book contains many ideas dating back to Plato.
- (821) Much effort goes into the production of plays such as this one.
- (822) Considerable effort went into making the operation successful. (Oxford Dictionary of English)

The realization of an abstract element such as an event can be viewed as the partial result not only of actions, but also of the availability of resources. Thus, when the PP complement of GO refers to an action but the subject refers to an entity, we infer that the latter is a resource that contributes to the realization of that action. This is the case in (823) through (825), in which the subject refers to an amount of money. Given our extra-linguistic knowledge of how money contributes to the realization of various actions, there is sufficient information to bring about an interpretation in which the money acts as a contributing factor in bringing about the action described by the complement PP. Note that unlike the concrete 'ingredient/component' use shown above (examples (811) and (812)), which relies on the notion of containment expressed by IN, abstract situations such as those illustrated in (823) and (825) can be expressed via a variety of prepositions. This is due to the nature of the entities involved: while artifacts come into being via the establishment of a part-whole relation with their

components/ingredients, the abstract relation between events/actions and their causal factors can be conceptualized in more than one manner¹¹⁹.

- (823) A large part of the money went into/toward cleaning up the disaster area.
- (824) A quarter of the budget goes toward/for military purposes.
- (825) Half her salary goes toward/on the rent. (Longman)

In our experience of the world, actions and resources that are put forth to bring about the accomplishment of a goal can vary in the extent to which they contribute to accomplishing the goal. Accordingly, when context supports a construal of GO as describing the contribution of a cause or resource to the existence/realization of the PP's referent, we can use a modifier of GO to specify the extent to which the cause or resource contributes to this realization. This is shown in (826) through (828), where GO is modified by expressions of extent $(a long way, far)^{120}$.

- (826) The sale will go a long way towards easing the huge debt burden. (Oxford Dictionary of English)
- (827) Critics are wondering how far these measures will go toward meeting the needs of those touched by the disaster.
- (828) A little bit of this cleaner goes a long way.

As (828) shows, when such a modifier is present, the complement expressing the resulting action/state can be omitted, for the information provided by the subject and the modifier are sufficient to arrive at a situation of contribution toward a goal. Combining the subject's

An account both of the factors determining choice of preposition and of semantic differences brought about by this choice would require an analysis of the meaning of the prepositions themselves. As announced in section 2.3, given that these elements are themselves highly polysemous, such an analysis goes beyond the scope of the present study.

¹²⁰ I assume, in line with the general monosemous approach being pursued here, that these modifiers are not intrinsically spatial elements. Evidence in support of this assumption comes from the wide array of abstract uses of these supposed "distance" expressions: e.g. So far, we haven't made too many mistakes; John is far from being the best candidate; As far as I can tell...; She is far too easy on her students.

semantics with the semantics of the verb, we obtain a situation in which an artifact is oriented toward a localization relation with ω . X refers to a product whose function is to clean. The end-relation of the orientation is therefore most naturally interpreted as being one in which X contributes to the action 'successful cleaning'. We infer that the extent modifier a long way describes the degree to which the cleaner contributes to bringing about this event, leading to the compositional meaning 'a small dose of the cleaner contributes greatly to the realization of the event of cleaning some object'.

In each of the 'resource/contribution' uses discussed above, the verb GO, which contains localization as an end-relation, provides the necessary information from which to derive the notion of a process with an end-point, i.e. an outcome. In addition, this localization relation is further specified via prepositions such as IN and TOWARD that interact with elements of context and background knowledge to bring about the notion of causality. Since the verb ALLER does not contain localization, it does not provide the notion of endpoint necessary to derive the idea of outcome of a process. Although this notion of end-localization can be provided by using the preposition A, use of this preposition precludes the use of an additional preposition expressing a notion construable as causality. Hence, whether ALLER is used with A or a containment preposition like DANS, it does not allow us to obtain an acceptable sentence expressing a 'resource/contribution' situation, as the following sentences show.

- (829) *La plupart des gens ignore les substances toxiques qui vont aux/dans les produits ménagers.
- (830) *Un effort considérable est allé à/dans/sur ce projet.
- (831) *La moitié de son salaire va au/dans/vers le loyer¹²¹.
- (832) *La vente ira loin à/dans/vers une réduction de la dette.

5.8 Ceasing/ending

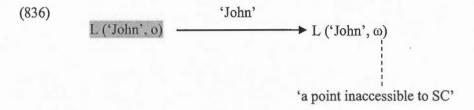
In the present section I turn to uses in which GO expresses 'ceasing/ending'. As we saw above (section 5.5), a 'change-of-state' reading comes about when the subject of GO/ALLER refers to an entity and there is a PP complement describing a state. The complement is taken to specify the reference of the end-state 'localization at the anti-deictic center', thus identifying the state resulting from the change.

However, when the subject refers to an entity and the verb is *not* followed by a complement specifying the nature of the end state, the latter must be inferred from context or from world/background knowledge. This is the case in (833) through (835).

- (833) Before John goes, we should ask him to have a look at our computer.
- (834) I heard about the job offer John received. If he goes, who will take his place in the company?
- (835) John wants his ashes to be scattered at sea when he goes.

In each of these sentences, the subject refers to a human, so each sentence expresses that a human is oriented toward a localization relation with ω . The constant ω is 'a point other than o', and o is intrinsically 'a point that is accessible to SC'. So in sentences like these where no complement identifies the end-state, we infer that the end state of the change is some kind of state that makes X *inaccessible* to the SC. This is schematized in the following.

¹²¹ With À, this sentence appears to be acceptable for certain speakers of Québec French, perhaps due to the influence of English.



According to our world knowledge and given the highly general, domain independent nature of the notion 'accessibility', there are multiple ways for a human to become inaccessible to a given SC. In (833), as seen in my discussion in section 5.1, when context favors a spatial construal of o and thus also of ω (as 'SC's location' and 'a point other than SC's location', respectively), the result is a 'motion' reading. Since there is no complement specifying destination of movement, the most natural spatial reading is one of departure from the SC's location. However, in (834) and (835), context favors an abstract construal of ω , so a motion reading is ruled out. In (834), contextual material (in particular, the clause who will take his place in the company) provides information about the type of end-relation resulting from the change: the change involves an interpersonal relation, i.e. involvement in an organization (the company). Thus, the initial state 'localization at o' takes the form of employment at the company, and the end-state is one of non-employment at the company. Since the inferred source point is the deictic center (as shown in (836) above), we infer that the Subject of Consciousness (in this case the speaker and/or hearer) is most likely a fellow employee of John. Thus, the sentence expresses that John is oriented toward no longer being employed at a company for which the SC also works.

In (835), context once again supports an abstract construal of ω . However, in this case, the information available supports a drastically different situation. As pointed out above (section 4.4), the most general way for a given entity to be accessible to all SCs is for it to *exist*. Thus, when context is appropriate, o can be construed as 'existence', leading us to construe ω as 'non-existence'. In such cases, GO describes X's orientation toward non-existence, yielding a 'ceasing to exist' reading. Furthermore, world knowledge tells us that the broad notions of existence and non-existence, when applied to humans, are most naturally interpreted as life and death, respectively. Thus, sentence (835) most naturally receives the reading: '...when John dies...'.

When the subject refers to an element other than a human, this also affects the way we construe X's orientation toward inaccessibility. For example, in (837) the subject is an abstract, inanimate entity. Our default assumption about any entity referred to in the discourse is that it exists, so we interpret 'localization at ω ' as 'non-existence', and the sentence thus receives the interpretation 'these jobs are oriented toward a state of non-existence'. Given our world knowledge about jobs, we infer that the jobs in question are to be eliminated. The same reasoning applies to (838). In this case, the modal HAVE (TO) expresses the necessity or desire for the 'ceasing' to occur. That is, the speaker expresses a wish to see the policies cease to exist, and the sentence thus describes a situation of rejection or abandonment.

- (837) These jobs are due to go next year.
- (838) These antiquated policies have to go.

When the subject refers to a concrete entity which according to world knowledge is commonly possessed by humans, as in (839) and (840), we most naturally interpret the implied initial relation of accessibility to the SC as one of possession by the SC. Thus, the sentence is taken to describe the ending of a relation of possession, i.e. the action of getting rid of the entity in question. The difference between these sentences and (838) above results from our world knowledge about the entities involved: the most obvious way for us to rid ourselves of an unwanted policy is for it to cease to exist, while the most natural way for a person to rid himself of a couch or a dog is for him to end a relation of possession with the couch/dog (which obviously can but does not necessarily involve the entity's ceasing to exist).

- (839) This couch has to go. (We have had it for thirty years now.)
- (840) That dog has to go. (He has been chewing up all of our furniture.)

While GO can be used to express 'ceasing of possession' when context indicates that the possessor is the instigator of this change (as in the preceding examples), the result is only marginally acceptable when the instigator is someone other than the possessor, as in the 'theft' situation expressed by (841). The slight oddness of this sentence comes from the fact

that in this case transition to a relation of non-possession occurs via motion, and the use of an inanimate subject with GO in a motion context is only acceptable when the entity can be depicted as providing its own movement¹²².

(841) ?When he returned, his equipment had gone. (Adapted from Oxford Dictionary of English)

According to world knowledge of artifacts, possession is not the only way for these objects to cease to be accessible to a Subject of Consciousness. An artifact to which we attribute some salient functionality can cease to be accessible by ceasing to *function*. Thus, in (842) and (843), complementless GO with an artifact as a subject receives a 'breaking/damage' interpretation: the sentences express that the light bulb and washing machine (whose default state is to be functional) are oriented toward non-functionality (ω), i.e. they are ceasing to function. Note that sentence (843) is ambiguous between two opposite readings: the 'breaking' (i.e. orientation toward non-functionality) reading described here and an interpretation in which the washing machine is carrying out its normal function. This second interpretation, which results from construing GO's orientation temporally, will be explained in section 5.9.

- (842) The light bulb is starting to go.
- (843) My washing machine is going.

Just as artifacts achieve accessibility to humans when they fulfill their intended function, humans' own cognitive and perceptual faculties are accessible (and indeed act as channels of access themselves) when they are functional. Thus, when the subject of GO is an NP referring to such a faculty, as in (844) and (845), the faculty's orientation toward inaccessibility to the SC is most naturally interpreted as the SC's *loss* of this faculty. That is,

¹²² Note that although the sentence becomes fully acceptable when *had* is replaced with *was*, this does not constitute counter-evidence to the current analysis, since adjectival GONE can be assumed to be lexically distinct from the verb GO.

these sentences describe a situation of gradual impairment, meaning roughly: 'My faculty of hearing/memory is starting to disappear'.

- (844) My hearing is starting to go.
- (845) My memory is starting to go.

According to our world knowledge, while the proper functioning of faculties such as a human's senses is itself seen as the default situation (and thus an appropriate referent of o when the latter is construed as 'normalcy'), sensory events themselves – especially negative sensations such as pain – are typically viewed as temporary and exceptional. Consequently, if the subject X refers to a sensation such as a headache or a ringing in one's ear, the sentence is only marginally acceptable: when hearing disappears (as in (844) above), there is *loss* of something that is normally present, whereas when a transitory auditory phenomenon (e.g. *the ringing in my ear*) disappears, it is odd to portray this transition as 'orientation from a normal to an exceptional state of affairs'.

- (846) ?Has your headache gone yet?
- (847) ?The ringing in my ear has finally gone.

Note that the notion of transition from normalcy to an abnormal state is merely an inference resulting from the absence of an element in the sentence explicitly specifying the nature of the end state. When we add a particle like AWAY, which I assume expresses 'ending of localization at some point', this particle specifies the nature of the end state. Since AWAY's meaning is neutral with respect to the deixis of the starting point (i.e. it can describe orientation from any point, not just o), the sentences become fully acceptable as in (848) because they are no longer construed as describing the ending of a normal state, but rather merely the transition from one state to another.

(848) My headache/The ringing in my ear went away.

All of the 'ceasing/ending' uses described in this section result from the fact that GO expresses orientation toward a localization at ω . When no complement is present to specify the nature of this end localization at ω , we interpret it as a state of inaccessibility to the SC (the nature of this state being determined by contextual information and world knowledge

about the entities involved). ALLER, on the other hand, does not contain localization as an end relation (construable as an end state), so it cannot express change of state without a complement specifying the nature of the end-state. As a result, ALLER cannot be used without a complement to express 'ceasing/ending', as the following examples show.

- (849) J'ai entendu parler de l'offre d'emploi que Jean a reçue. * S'il va, qui prendra sa place au sein de l'entreprise ? (intended meaning : 'ending of employement')
- (850) *Jean veut que ses cendres soient répandues à la mer quand il ira. (intended meaning : 'death')
- (851) *Ces emplois sont censés aller l'année prochaine. ('ceasing to exist inanimate entity')
- (852) *Ces politiques désuètes doivent aller. (intended meaning : 'rejection/abandonment, ending of possession')
- (853) *Ce divan/ce chien doit aller. (intended meaning: 'rejection/abandonment, ending of possession')
- (854) *L'ampoule dans la salle de bain commence à aller. (intended meaning : 'breaking, ceasing of functionality')
- (855) *Mon ouïe commence à aller. (intended meaning : 'loss of faculty')

Note, however, that the expression S'EN ALLER can indeed be used to express 'ceasing/ending', as shown by examples such as (856) through (860). As this complex expression is at least potentially an idiomatic expression, it has been excluded from the present dissertation's analysis (see section 2.3). However, one possible explanation for the existence of this use for S'EN ALLER is that the presence of EN (much like English AWAY) provides the notion of source localization, and that the latter, in combination with ALLER's deictic content, yields the notion of 'ceasing localization at o', i.e. 'ceasing to be in a state of accessibility'.

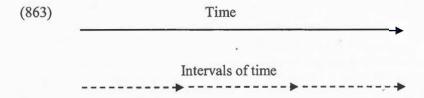
- (856) Si Jean s'en va, qui prendra sa place au sein de l'entreprise?
- (857) Avant de s'en aller, Jean a exprimé ses derniers vœux.
- (858) Sa volonté s'en va peu à peu. (Grand Robert de la langue française)
- (859) Les tâches d'encre s'en vont avec ce produit. (Grand Robert de la langue française)
- (860) Du jour qui s'en allait, à peine s'il restait un incertain reflet... (Ramuz, cited in the Trésor de la langue française)

5.9 Temporal uses

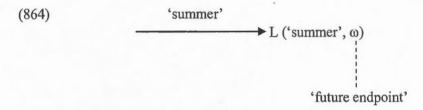
In the majority of the semantic uses examined so far, the subject of GO/ALLER refers to an entity, and world knowledge about the nature of this entity and about the complements or modifiers (if any are present) determines how we construe the orientation expressed by the verb. If, instead, the subject refers to a time period as in (861) and (862), world knowledge once again determines how we interpret the orientation expressed by the verb.

- (861) Summer is going fast.
- (862) L'été va vite.

Since the subject of GO/ALLER refers to a time period, the verb's orientation and the anti-deictic center ω are interpreted in the temporal domain. Because the anti-deictic center is defined as 'a point other than the deictic center', and because the deictic center can be construed temporally as 'now', the anti-deictic center is interpreted temporally as 'any point that is not now'. We view time itself as being intrinsically oriented from past to present to future (due to properties of general cognition; see Bouchard, 1995, p. 141), and since all time periods are "slices" of time, they are also intrinsically oriented, as illustrated in the following.



Thus, in a temporal construal, the orientation in GO/ALLER's meaning is taken to refer to the intrinsic orientation of time itself or of an interval of time. Given the orientation we attribute to time, if ω is the end-point of the temporal orientation, it must be *subsequent to* the reference time and thus in the future (Bouchard, 1995, p. 155). For an English sentence like (861) above, we obtain the compositional meaning illustrated in (864), which can be paraphrased as: 'The time period *summer* is undergoing an orientation toward localization at its own intrinsic temporal end point'.



In the case of the French sentence (862) above, we obtain a similar compositional meaning, paraphrasable as: 'the period summer is temporally oriented toward relating to a temporal point ω '. Although no localization is expressed here, the fact that we construe the orientation and the constant ω temporally radically reduces the possible interpretations of the relation R. That is, given our knowledge of time's orientation and our knowledge that time intervals have boundaries, the only obvious way for a time period to be oriented toward a future point ω is for ω to be the *endpoint* of this period¹²³. Thus, despite the absence of a localization component in the sentence, we nonetheless infer that ω refers to the endpoint of the time period, leading us to the same global meaning as with GO: 'summer is oriented toward reaching its own temporal endpoint'.

In both sentences, the modifier quickly/vite specifies the speed of this orientation. The speaker is thus expressing the impression that the time period's natural tendency to reach its

¹²³ It could be argued that representation (864) also allows an alternative interpretation: if ω is a future point other than the summer's own endpoint, we could obtain: 'the summer is oriented to being wholly in the future', i.e. 'the summer will take place in the future'. Crucially, however, this interpretation is ruled out by our extralinguistic knowledge: a time period like summer cannot be oriented away from the present such that it becomes localized in the future.

temporal endpoint is being accomplished with considerable speed. While world knowledge indicates that time passes at a constant speed, use of a speed modifier portrays the speaker's subjective experience of the passage of time, an experience that allows for the speed of time's passing to *vary*. If the sentence were to contain no such modifier, as in (865) and (866), it would simply state that a given time period X is oriented toward its own intrinsic endpoint. Since time periods are all intrinsically oriented toward their own endpoints, these sentences are completely uninformative and thus unacceptable.

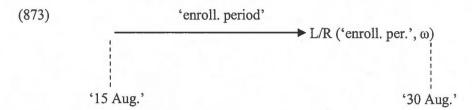
- (865) *The day is going.
- (866) *La journée va.

Since an event is by definition an element that occurs in time and thus corresponds to a time interval, all events inherit the property of having an intrinsic temporal orientation. Hence, if the subject is an event expression as in (867) and (868), we construe GO/ALLER as describing this event's orientation toward its own temporal endpoint. Once again, without a modifier, the sentence merely restates the obvious fact that these events are oriented toward their own endpoints, yielding the unacceptability observed in (869) and (870).

- (867) The events are going so fast that I am not able to keep up to date.
- (868) Les événements vont si vite que je n'arrive pas à me tenir au courant.
- (869) *The events are going.
- (870) *Les événements vont.

Note that the preceding examples contain no PPs specifying source and destination. When such complements are included, they are interpreted as explicitly identifying the source and endpoint of the orientation, i.e. the temporal beginning point and endpoint of the time period. Sentences (871) and (872) yield a meaning that can be schematized as in (873).

- (871) The enrollment period goes from the 15th to the 30 of August.
- (872) La période des inscriptions va du 15 août au 30 août.



By explicitly anchoring the time period at both a starting point and an endpoint, we obtain a reading expressing 'measure of a time period'. This is parallel to the 'spatial measure' reading obtained when the arguments are concrete, immobile entities (*This road goes from Quebec to Montreal; Cette route va de Québec à Montréal*). In contrast with (867) and (868) above, this anchoring at precise temporal points has the effect of presenting the time period objectively, independently of the speaker's impressions. Predictably, combining both a speed modifier and source/destination PPs describing a beginning point and an endpoint results in a conflict between a subjective and an objective presentation of the time period's passing, hence the unacceptability of sentences such as (874) and (875). However, the sentences become acceptable if we are contrasting the impression of speed during that period with the speed of another period, as in (876) and (877)¹²⁴.

- (874) * The enrollment period went quickly from the 15th to the 30 of August.
- (875) *La période des inscriptions est allée vite du 15 août au 30 août.
- (876) The enrollment period went quickly from the 15th to the 30 of August but then dragged on for a month.
- (877) La période des inscriptions est allée vite du 15 août au 30 août puis a avancé très lentement pendant un mois.

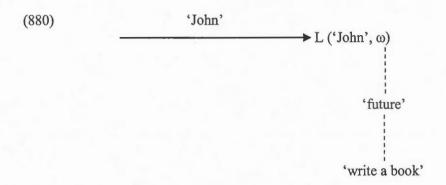
So far, we have looked at cases where the time expression plays the role of subject, yielding a sentence expressing that the time period or event is oriented toward its own temporal endpoint, with additional sentential elements such as modifiers or source/destination PPs providing information about this orientation. If, on the other hand, the event expression is not

¹²⁴ Observation made by Denis Bouchard (personal communication).

the subject but rather a complement or adjunct, the compositional meaning obtained is different. This is the case in (878) and (879) below, where GO and ALLER are followed by an infinitive verb describing an action. Since these elements are temporal, the orientation and anti-deictic center are once again interpreted temporally. However, in this case given the structural position of the event expression, the latter provides information about the end relation of the orientation: it describes the end-state situated at the temporal point ω. The result is a situation in which the subject's referent X is oriented temporally toward accomplishing the action described by the infinitive verb, yielding the idea that the action is located in the *future*. In this use, the subject can be virtually anything (a person, an inanimate entity, an abstract element, an event, a quality, etc.), since virtually any element can be conceived of as being oriented toward participation in a future event. As Bouchard (1995, p. 153-154) points out, the orientation component, by expressing a link between present (established by the present tense of *is going*, va) and future (ω identified by the infinitives to write/écrire), yields an effect of relevance to the present, hence the notion of 'nearness' traditionally associated with this use.

- (878) John is going to write a book.
- (879) Jean va écrire un livre.

Because GO and ALLER differ in terms of the end-relation they intrinsically express, they also differ in the precise way in which they can be combined with an action infinitive to express 'future'. In sentence (878) the infinitive is introduced by the localizer TO. (I assume, in line with the general monosemous approach, that prepositional TO and infinitive-introducing TO are one and the same lexical element.) The TO-phrase is taken to identify the content of the relation L, so TO's argument, the INF itself, is taken to identify L's argument ω. We thus obtain the semantic structure illustrated in (880).



The sentence thus ascribes to John the property of being oriented toward engaging in the INF-action 'write a book', and the present progressive situates this property at the moment of speech. Hence, the speaker is expressing a prediction about the occurrence of a *future* action. Predictably, if we use the past progressive as in (881), the property holds at a reference time t in the past, with the action taking place at a time t' subsequent to t. (Since the reference time is distinct from the present, t' can be prior to, identical with, or subsequent to 'now'.) At this past reference time from which the Subject of Consciousness views the situation, the action is presented as potential and indeed probable, given that John has an *orientation* (i.e. an increasing potential) toward writing a book. But the fact that the orientation held true at t does not entail that it held true at all times subsequent to t, and hence an additional clause affirming non-occurrence of the event as in (882) does not produce a contradiction.

- (881) John was going to write a book.
- (882) John was going to write a book, but he gave up the idea due to a lack of time.

If, instead, we use the future progressive as in (883), the result is an unacceptable sentence. This sentence states that the orientation holding true at future time t and that extends from t to a temporal point ω that is further in the future. As a result, the orientation does not hold true at utterance time. The simultaneous use of GO and WILL gives rise to a conflict: on the one hand, GO expresses a tendency toward a future action and hence makes a prediction, and on the other hand, the future marker WILL fully isolates this prediction in the future and presents it crucially as non-effective in the present. The event's present potential to occur is therefore both affirmed (via GO's orientation) and denied (due to this orientation's being

non-effective), and this conflict in perspective results in the unacceptability exhibited in (883).

(883) *John will be going to write a book.

Note that the construal of GO's orientation as a temporary (i.e. temporally bounded) property relies on the use of the progressive aspect. If we use a non-progressive form, the orientation is either construed as punctual (as with the simple past in (884)) or as non-temporary (as with the simple present in (885)), and consequently no 'future' reading can be obtained for GO. Likewise, if GO is in a morphologically unmarked form, such as when it follows a modal, it lacks the possibility of anchoring the orientation at the time of speech or the time of reference, leading once again to an unacceptable use (as shown in (886)).

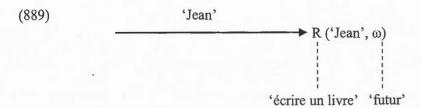
- (884) *John went to write a book.
- (885) *John goes to write a book.
- (886) *John will/would/can/could/etc. go to write a book.

Recall that there are two basic ways in which an INF can be combined with a preceding verb in English: either by being introduced by TO, or in its bare form. As we saw in the discussion of GO's progredience use (see section 5.2.2), in which a bare INF following GO is taken to specify the content of GO's end relation L, this GO + BARE-INF construction is limited to cases in which GO itself bears no morphological mark. Thus, when GO is in the progressive form, it cannot be combined directly with a bare INF. And since GO's future reading relies on the use of the progressive form, GO + BARE-INF cannot be used to obtain a 'future' reading, as shown in (887).

(887) *John is going write a book.

In contrast, as Bouchard (1995, p. 154) points out, ALLER's 'future' use is structurally equivalent to the 'progredience' sense. As we saw in my discussion of progredience, unlike English GO, French ALLER is not subject to any constraints on its morphological form when it combines directly with an INF. This is why ALLER can be directly combined with an INF to obtain a 'future' reading as in (888), whose semantic structure is given in (889).

(888) Jean va écrire un livre.



As seen in the discussion of progredience, because the INF is directly adjoined to ALLER rather than introduced by a relational element, it cannot be taken as co-referential with the point ω . Instead, in this construction it applies directly to R itself, thus telling us *how* 'Jean' relates to the temporal point ω : Jean relates to this future point by carrying out the action 'write a book'. We thus obtain a meaning paraphrasable as: 'Jean is oriented toward the future action of writing a book'.

Note that this construction contains no element expressing localization and thus no element expressing the notion of temporal endpoint. If, instead of directly combining INF with ALLER, we were to use the localizer \grave{A} to join the two verbs as in (890) below, this localizing preposition would specify the content of R. Furthermore, INF, the argument of \grave{A} , would be taken as co-referential with R's argument, the point ω . However, as seen above (see section 5.5), a situation of transition toward localization at a new point requires the notion of source localization. Crucially, while GO's meaning supports an implied source localization, ALLER's meaning does not. Hence, while GO + TO + INF is acceptable with a 'future' reading, ALLER + \grave{A} + INF is not, as shown in (890). Note that the addition of EN (an element expressing source localization, c.f. my discussion of EN VENIR \grave{A} INF, section 4.6) does not improve acceptability. This is because EN appears to be semantically inadequate to express a temporal source localization, as evidenced by the fact that (891) cannot be paraphrased as (892).

- (890) *Jean va à écrire un livre.
- (891) La période des inscriptions va du 15 août au 30 août.
- (892) *La période des inscriptions en va au 30 août.

To conclude, in the present section we have looked at GO/ALLER's temporal uses, i.e. those in which one of the arguments in the sentence refers to a temporal element such as a time period or an event. We have seen that there are two general possibilities, depending on the grammatical role occupied by the time expression. If the time period/event NP plays the role of grammatical subject of GO/ALLER, the orientation component in these verbs' meaning is construed as referring to the intrinsic orientation of time itself (from past to present to future), and we obtain an use expressing the passing of time. If the temporal element is a complement or adjunct of GO/ALLER, we obtain a situation of 'X's orientation toward performing a future action'. The precise structure via which this is achieved in each language is influenced by the verb's intrinsic semantics and by the language's grammatical properties. GO expresses 'future' when the INF is introduced by TO, making INF co-referential with the ω and thus expressing localization at a future time associated with an action. ALLER, on the other hand, expresses 'future' when an INF is directly adjoined to it, such that the INF applies directly to R, telling us *how* X relates to ω at the end of the orientation. Despite these structural differences, both verbs allow the expression of an action located in the future.

Furthermore, the present section has demonstrated that like GO's and ALLER's other semantic uses, their temporal uses are derived in context from an invariant, abstract meaning. Thus, contrary to what is affirmed in Cognitive Semantic analyses of these verbs, it is entirely unnecessary to posit separate meanings linked to the prototypical 'motion' use via conceptual metaphors such as TIME PASSING IS MOTION (see Radden, 1996). Both the 'motion' use and the temporal uses of these verbs are obtained because GO and ALLER express orientation, i.e. 'increasing potential', with contextual factors determining what kind of orientation is involved. The sentence *John is going to Montreal* expresses that John has increasing potential to be in Montreal, while the sentence *John is going to write a book* expresses that he has increasing potential to write a book. In the former case the relation takes the form of motion, while in the latter it takes the form of futurity, and it is context and

background knowledge that are responsible for this distinction. Crucially, the adoption of multiple lexicalized meanings linked via numerous conceptual metaphors in a complex network (as in a Cognitive Semantic analysis) makes this type of parsimonious generalization impossible.

5.10 Evaluation

In this section I discuss how GO and ALLER express evaluation. As shown above (section 5.9), when the subject of GO refers to an event and there is a modifier expressing a temporal property such as speed as in (893), we construe the orientation and the endpoint ω temporally: the sentence is taken to describe the event's orientation toward reaching its own temporal endpoint. In sentence (894), the subject once again refers to an event, yielding a temporal construal of the orientation. However, in this case, rather than providing temporal information the modifier expresses evaluation.

- (893) The events are going so fast that I am not able to keep up to date.
- (894) The exam/dinner party/construction of the bridge went well/is going well.

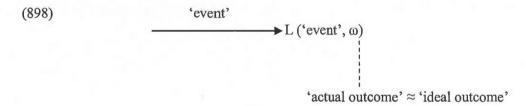
Evaluative modifiers can be assumed to express degree of correspondence between a real element A and a corresponding ideal A'. Thus, evaluative terms like WELL and POORLY can be given the approximate description in (895) and (896), respectively.

- (895) Positive evaluators: 'actual $A \approx ideal A'$ '
- (896) Negative evaluators: 'actual $A \neq ideal A$ ' '

As a result, in (897) below the adverbs WELL and POORLY express that the particular instantiation of the action A named by the verb (painting, swimming, dancing) corresponds/does not correspond to an implied ideal version A of this action. The sentence therefore expresses that 'Jane's painting/swimming/dancing corresponds/does not correspond to the ideal for painting/swimming/dancing'.

(897) Jane paints/swims/dances well/poorly.

Hence, in (894) above the modifier WELL applies to GO's meaning and indicates that the event's *actual* orientation corresponds to its *ideal* orientation. The use of this modifier brings us to look for some element in GO's meaning that can be compared to an ideal. Crucially, the relation $L(X, \omega)$, which is construed temporally as anchoring at a temporal endpoint, can be metonymically interpreted as the state of affairs that holds at that endpoint, i.e. the *outcome* of the event. Applying the semantics of the positive evaluative element WELL to this component, we obtain the idea that the event's actual outcome corresponds (to a certain degree) to its *ideal* outcome, as schematized in the following. In other words, the sentence expresses that 'event X (the exam/dinner/party/etc.) is oriented towards the attainment of its ideal outcome'.



Based on this same reasoning, when the subject of GO + EVALUATIVE-MODIFIER refers to a *time period*, the latter is construed metonymically as an event or succession of events, i.e. as an interval with internal change. Thus, in (899) through (901) below, the subjects *the day* and *the weekend* refer to the events that happened during the temporal interval in question. Once again, use of an evaluative modifier yields the idea of a comparison between the event's actual outcome and its ideal outcome. Even when the precise nature of the event is not specified, as in (901), we still infer that the referent is some kind of event/process or series of events.

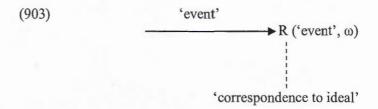
- (899) The day is going pretty well.
- (900) How did the weekend go?
- (901) 'Hi Jane. How's it going?'-'Fine, thanks.'

Due to its difference in intrinsic meaning, the verb ALLER achieves an 'evaluative' use differently than GO. Because ALLER's end-relation is the maximally general R rather than

localization at a point, ALLER's semantic content is too general to provide the notion of a temporal endpoint in a sentence like (902). Hence, ω cannot be construed as an outcome of the event. As a result the evaluative modifier BIEN's meaning of 'correspondence to an ideal' cannot be taken as qualifying the outcome of the event as it does in (899) through (901) above.

(902) L'examen/la fête/la construction du pont va bien.

If, however, the evaluative modifier is taken instead as applying directly to R itself, we obtain a meaningful interpretation. Since R is maximally general, it can be construed as *any* relation between two elements, provided that there is information from context or background knowledge to support this construal. In the present case, we have a modifier that itself expresses a relation between two elements: an actual element A and the corresponding ideal A'. So if the modifier applies to R, we obtain that R itself is a relation of correspondence between X and its ideal, as represented in (903).



This notion of 'ideal' is supported by the semantic properties of the anti-deictic center, whose meaning is 'any point other than the deictic center'. Recall that the deictic center can be construed as 'the real world' (for example, see section 4.4). When this is the case, the anti-deictic center is most naturally interpreted as 'the set of non-real, i.e. potential, worlds' (see Bouchard, 1997). In the context of an evaluation, the notion 'potential world' can be interpreted specifically as 'the *desirable* potential state of affairs', i.e 'the ideal'. Thus, for sentence (902) above, we obtain: 'event X (the exam/party/construction/etc.) is engaged in a tendency toward corresponding to an ideal'.

Since not only events but entities can be characterized as resembling or not resembling an ideal, ALLER can also be used to express evaluation with a subject referring to an entity, as in the following examples.

- (904) Jean va bien.
- (905) Les affaires vont bien.
- (906) L'économie va bien.

In each of these sentences, the elements present yield the compositional meaning 'X is oriented toward corresponding to the ideal X''. Note that this has consequences for the kind of properties that can be targeted by the evaluation. Since X is being compared to an ideal version of itself (X'), sentence (904) expresses that the 'real Jean' is oriented toward corresponding to (i.e. resembling) the 'ideal Jean'. This restricts the interpretation to aspects of Jean himself: without special context, Jean va bien normally means that he is healthy or that he is in a psychological state of well-being. However, as pointed out by Denis Bouchard (personal communication), when the context involves a salient action of which Jean is the agent, Jean can be used metonymically to refer to this action. Thus, for example, an observer of a chess tournament (or other contest) can say Jean va bien with the intended meaning 'Jean is doing well so far'. This is because in the context of the tournament, the most salient aspect of John is not a general property such as health or psychological well-being, but rather his status in the game (i.e. whether he is winning or losing).

In contrast to ALLER, GO contains the specific end-relation of localization, and the latter is not construable as correspondence to an ideal. That is, saying that 'X is localized at ω ' cannot be interpreted as 'X is *similar* to ω '. Thus, when GO is used with an evaluative modifier, the latter cannot be taken as specifying the content of the end-relation L. Instead, as shown above, the modifier applies to the end-point ω construed as an outcome of an event. Because GO's 'evaluation' use is based on the temporal construal of GO's components, we can only obtain this sense when the subject is a temporal element, i.e. a time period or an event. When the subject refers to some other type of element such as an entity, the result is an unacceptable sentence, yielding the following contrasts between ALLER and GO.

- (907) Jean va bien. vs. *John is going well. (person)
- (908) Ce couteau va mal. vs. *This knife goes/is going badly. (inanimate entity)
- (909) L'économie va bien. vs. *The economy is going well. (abstract entity)

Another difference concerns the possibility of omission of the modifier. ALLER's evaluative use is not based on orientation toward an outcome but rather on correspondence to an ideal. As shown above, the notion of ideal itself is obtained by construing ω as a possible world and hence an 'ideal' when contextual elements such as an evaluative modifier support this interpretation. But when the subject of ALLER is the highly general pronoun CA, an element capable of referring to 'the situation in general' and thus to 'things as they exist in the real world', we obtain a sentence expressing that the real world is oriented toward corresponding to ω . The 'possible world' construal of the latter is thus strongly favored by semantic properties of CA, so no evaluation modifier is needed to obtain an evaluation interpretation, as shown in sentences like (910) and (911). In contrast to this, CA evaluative use results from the verb's meaning being construed temporally, with and CA (construed as a temporal endpoint) receiving the interpretation 'outcome', such that no element of the verb's meaning provides the notion of 'ideal'. Since the latter is supplied solely by the evaluative modifier, omission of this modifier is impossible, as shown in (912)¹²⁵.

- (910) Ca va.
- (911) Ça ne va pas en ce moment.
- (912) *It is going/Things are going.

Since ALLER's component ω is construed as 'ideal' (i.e. that which is inaccessible to the SC in the real world), when a dative clitic pronoun is used, the latter specifies the person to

¹²⁵ An apparent exception is the use of the subject ANYTHING, as in: At these parties, anything goes. However, this is most likely a fixed expression, as shown by the impossibility of changing the tense or aspect: *At that party, anything went. *At this party, anything is going. Moreover, anything goes does not express evaluation, but rather permission.

whom this ideal belongs, i.e. the SC whose consciousness determines the ideal. Hence, sentence (913) expresses 'acceptability to a person'.

(913) Je peux te/vous rencontrer à 10h demain. Est-ce que ça **te/vous** va? – Oui, ça **me** va.

Since English has no direct equivalent to the French dative clitic, a direct translation of these sentences is unacceptable, as shown in (914). Moreover, since in GO's 'evaluative' use the anti-deictic center is interpreted temporally rather than as an ideal, a destination complement referring to a person cannot specify the reference of ω , accounting for the impossibility of the 'acceptability to a person' use for GO, as in (915).

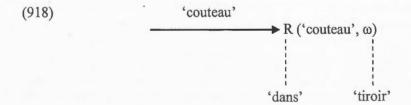
- (914) *I can meet you at 10 tomorrow. Does that go you?
- (915) *I can meet you at 10 tomorrow. Does that go to/for you?

In conclusion, while both GO and ALLER express 'evaluation', they accomplish this differently. GO's evaluative use is obtained by construing 'localization at ω ' as a temporal endpoint (more specifically, as the outcome of an event), while in ALLER's evaluative use, the anti-deictic center is interpreted as 'ideal version of X', and the maximally general relation R is construed as 'correspondence to this ideal'.

5.11 Appropriateness/belonging

I now turn to a discussion of how GO and ALLER can be used to express 'belonging/appropriateness', as in (916) and (917).

- (916) Ce couteau-là va dans le tiroir à gauche.
- (917) Le livre va en haut de la bibliothèque.



In these sentences, the generic tense supports a construal of the orientation as a property that holds true at all points in time. Thus, sentence (917), whose compositional meaning is represented in (918), expresses that 'the knife is oriented at all points in time toward relating to ω '. The PP complement dans ce tiroir-là specifies the nature of the relation (in this case, containment) and identifies ω as 'that drawer'. Since the latter is a concrete entity, we construe the containment relation spatially (i.e. as concrete containment).

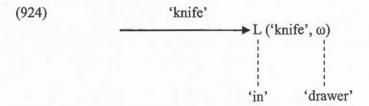
However, world knowledge about the subject's referent (a knife is an inanimate object incapable of self-movement) rules out a 'motion' construal, so GO's meaning must be interpreted abstractly. We saw above (section 5.10) that ω , as a point other than that which is accessible to the Subject of Consciousness, can be construed as an ideal (in opposition to the deictic center construed as the real world). A sentence like (916) and (917) above can therefore describe an entity's being permanently oriented toward an ideal relation, i.e. toward the way things *should be*.

The 'appropriateness/belonging' use illustrated in these sentences thus involves an SC's intentional view of the world: the knife is oriented toward containment in a drawer because a Subject of Consciousness judges that it should be there. For this reason, sentences like (916) and (917) can be used felicitously regardless of whether the particular spatial relation expressed by the PP (dans ce tiroir-là, en haut de la bibliothèque, etc.) is actualized at the time of the utterance. That is, the knife may or may not effectively be in the drawer in the real world (i.e. the deictic center); what is being expressed is that according to some Subject of Consciousness, the relation expressed by dans ce tiroir-là is the proper one. Moreover, this reading can arise even when background knowledge tells us that the relation in question is not effectively achieved the majority of the time. Thus, (919) is acceptable with a 'belonging' reading even though its content indicates that the intended relation 'the blocks are in the box' is rarely achieved in reality. That this use expresses a subjective judgment and does not therefore depend solely on objective properties such frequency of occurrence is further illustrated by (920). The latter is strange under a 'belonging' reading, for we view the fact that the sharks' belonging in the sea as part of objective reality rather than as determined by an SC's intentions. In contrast, example (921), if spoken by the director of a marine park, is acceptable because context and background knowledge indicate that there is a belonging relation established by an SC's (here, the speaker's) intentionality: the sharks are intended (e.g. by the owners/managers/employees of the park) to be in a particular aquarium.

- (919) Ces blocs vont dans la boîte à jouets, mais ils sont pratiquement toujours éparpillés par terre.
- (920) ??Les requins vont dans la mer.
- (921) Mais ces requins vont dans l'autre aquarium! Qui les a mis avec les phoques?

Because this use is based on an atemporal property and does not therefore involve a transition from one state to another, it does not require the notions of beginning point and end point, notions that rely on localization. This explains why this use is possible for the verb ALLER. However, while localization is not required for a 'belonging' situation, it is nonetheless compatible with such a situation. Consequently, GO can also receive this interpretation, as in (922) and (923). In (922)'s compositional meaning, which is schematized in (924), the preposition IN further specifies L as consisting of a containment relation. Crucially, the general relation of localization is compatible with containment, and the sentence is therefore acceptable.

- (922) That knife goes in the left drawer.
- (923) That book goes on the top shelf.



World knowledge can supply further details about the nature of the 'belonging' relation. For example, in (925) and (926), based on what we know about the artifacts involved – i.e. ovens and dishes – we infer that if the dish in question 'belongs in the oven', it is because it was designed to be used in the oven. More specifically, since we know that heat is potentially destructive for certain materials, we most naturally interpret this sentence as expressing that the dish in question is oven-safe, i.e. resistant to damage from the temperatures produced by an oven. Alternatively, with proper background knowledge, the sentence could mean that due

to lack of cabinet space the owner of the dish typically stores the latter in the oven when the latter is not in use.

- (925) This dish goes in the oven.
- (926) Cette assiette va au four.

When the verb is followed by a PP expressing accompaniment, as in (927) and (928), the sentence expresses that X belongs in the presence of another given object. Since the adverbs TOGETHER and ENSEMBLE mean roughly 'with Y' (i.e. The knives are with the forks is equivalent to The knives and forks are together), this same idea can be expressed by replacing the WITH/AVEC-PP with the adverb TOGETHER/ENSEMBLE, as in (929) and (930). The notion that the belonging relation is spatial is solely due to world knowledge about the arguments' referents, for neither GO/ALLER themselves nor the accompaniment terms WITH/AVEC/TOGETHER/ENSEMBLE contain any intrinsic spatial information. Thus, when we use an abstract subject and complement as in (931) and (932), we infer that the intended relation is also abstract. Once again, the same situation can be expressed by replacing the accompaniment PP with an adverb of accompaniment ((933) and (934)). In these sentences, given the abstract nature of the elements involved, we obtain the idea that the elements in question tend to occur in the same circumstances or at the same time.

- (927) These knives go with the other silverware.
- (928) Ces couteaux vont avec les autres ustensiles.
- (929) Should I put the knives and forks in separate drawers? No, they go together.
- (930) Devrais-je ranger les couteaux et les fourchettes dans des tiroirs séparés ? Non, ils vont ensemble.
- (931) Which adjectives go with the word "fear"?
- (932) Quels adjectifs vont avec le mot « peur »?
- (933) The words "morbid" and "fear" go together.
- (934) Les mots « peur » et « maladive » vont ensemble.

The notion of 'belonging/appropriateness' expressed in this use is highly general, for when a Subject of Consciousness judges that a given object *should* be in a given relation, this judgment can be based on a variety of properties. The type of properties involved depends on our world knowledge of the arguments involved in the sentence. Sentences (935) and (936) are in fact ambiguous. On the one hand, the belonging that is expressed may be attributable to frequent co-occurrence, as in examples (931) through (934) above: the pants and shirt belong together because some person (e.g. some Subject of Consciousness) habitually wears them at the same time.

- (935) These pants go with that shirt.
- (936) Ce pantalon va avec cette chemise.

Alternatively, the belonging relation may come from workplace standards (i.e. if the clothes in question are a uniform and the sentence is spoken by a manager to a trainee). Another possibility is that the two pieces of clothing are sold together (for example, if the sentence is spoken by a salesperson to a customer to inform the latter that the clothes cannot be purchased separately). Yet another (and perhaps the most salient) possible interpretation is one in which the belonging relation is established based on aesthetic considerations. Here, the speaker is expressing a judgment about how *visually harmonious* the clothes are when worn

together. The sentences become unambiguous if we introduce an evaluative modifier, as in (937) and (938).

- (937) These pants go well with that shirt.
- (938) Ce pantalon va bien avec cette chemise.

Here, the evaluative modifier (expressing correspondence between a real situation and its ideal counterpart) indicates that when the co-occurrence relation is realized, the situation approaches an ideal. This notion of a gradable correspondence to an ideal is compatible with the notion of harmonious accompaniment: in our subjective view of the world, objects can have visual properties that make their co-occurrence pleasing or displeasing (i.e. visually harmonious) to varying degrees.

If the entities involved are human, given the much broader range of properties we attribute to humans compared to inanimate objects, there is a greater number of properties that can be compared and evaluated subjectively for harmoniousness. Thus, while (939) and (940) can mean that John and Mary have visual properties that make them *appear* good together, the sentence is also acceptable if the relation of belonging is based on abstract properties such as personality traits. When the elements referred to by the subject are themselves abstract qualities, as in (941) and (942), the intended judgment of harmoniousness involves purely abstract considerations. That is, in this case the speaker expresses that the two abstract traits in question are somehow contradictory.

- (939) John and Mary go well together.
- (940) Jean et Marie vont bien ensemble.
- (941) These two personality traits do not go (well) together.
- (942) Ces deux traits de personnalité ne vont pas (bien) ensemble.

The 'harmonious accompaniment' reading seen in (937) and (938) can also be obtained by using a French dative clitic (ME/TE/LUI/etc.) or an À-phrase to refer to a person, as in (943) through (946). In these examples, ALLER's complement LUI indicates that the harmonious accompaniment relation holds with respect to a person. World knowledge about the subject's referent allows us to infer the specific kind of relation involved. Given the properties of a

shirt, (943) most likely describes visually harmonious accompaniment (i.e. the shirt *looks* good on the person because of its colors, the way it fits her/him, etc.), while in (944), we infer that indignation is particularly compatible with what the speaker knows of the person's personality traits, behavior, etc. Although these sentences cannot be translated word for word into English (e.g. *This shirt goes her well; *This shirt goes well to Mary), this is presumably because neither the English indirect pronoun form nor the preposition TO have as wide a range of functions as the French dative clitic and the preposition A, respectively. Note that the preposition ON, which can describe a relationship of wearing (What does she have on today?), makes it possible to express harmonious accompaniment in sentences like (947), though not in an abstract situation, as in (948)¹²⁶.

- (943) Cette chemise lui va bien.
- (944) L'indignation lui va bien. (Grand Robert de la langue française)
- (945) Cette chemise va bien à Marie.
- (946) L'indignation va bien à Marie.
- (947) This shirt goes well on Mary.
- (948) *Indignation goes well on her.

Before leaving the present discussion of 'appropriateness/belonging' uses, I would like to point out a related use, illustrated in (949). Unlike the specific 'belonging in a location' use discussed above (e.g. *This fork goes in that drawer*), which involves a generic tense depicting the orientation as an atemporal property, in case of (949) the future tense is used, yielding the idea not of a stable relation, but rather of a *transition*. In this sentence, the complement PP refers to a specific kind of location: a containing space. The future tense expresses a potential event contingent on some implied circumstance (e.g. 'if you try to put these clothes in the suitcase, ...'). The resulting interpretation is an assessment of X's potential of being contained

¹²⁶ Note that WITH is also impossible (*Indignation goes well with her), because the situation being described is not simply one of co-occurrence, but rather of possession of a quality.

in the container. Since this sense involves the notion of transition, which hinges on the notion of source localization, ALLER is inadequate for this use, as shown in (950). Instead, a verb like RENTRER, whose semantics explicitly encodes the nature of the end relation and thus allows us to infer the nature of the source relation, is used to express this situation.

- (949) I don't think all these clothes will go in your suitcase.
- (950) *Penses-tu que tous ces vêtements vont aller dans la valise?
- (951) Penses-tu que tous ces vêtements rentreront dans la valise?

5.12 Action

In this section I turn to a discussion of uses in which the subject of GO and ALLER refers to a person, yielding the 'action' interpretation seen in sentences (952) and (953), whose basic semantic content is represented in (954).

- (952) John is not going fast enough.
- (953) Jean ne va pas assez vite.

Taken out of context, these sentences are a priori ambiguous. On the one hand, because we strongly associate speed with movement, a motion reading can be obtained if GO/ALLER's end-relation is construed spatially as a physical location and the orientation is construed as movement toward this end location. But speed is not exclusively a property of movement: it can apply to any action or process that occurs over time. Thus, if these sentences are pronounced by a boss commenting on the progress of an employee who is striving to complete an important project, the notion of speed combines with contextual knowledge to lead us to construe GO's/ALLER's orientation as the intrinsic temporal orientation of an event towards its own temporal endpoint. In this case, the event is an action supplied by

context: 'working on the project' 127. The subject refers to a person, and crucially a person can be used metonymically to refer to the action of which this person is the agent. This person-for-action metonymy exists independently of GO and ALLER, as shown in (955) and (956), where the notion of speed expressed by the adjective, though predicated of a person, is interpreted as describing a property of the person's actions (i.e. 'some action that John performs is fast').

- (955) John is fast.
- (956) Jean est rapide.

Speed, the property expressed by the adverb in (952) and (953) above, is one salient characteristic of actions, but it is not the only one. When sentential elements describe other salient characteristics such as *extent* (e.g. *far/loin* in (957) through (960)) or *intensity* (e.g. *lightly/doucement* in (961) and (962)), we once again are led to interpret GO/ALLER as referring to an implicit action that can be identified from contextual knowledge.

- (957) He'll go far in life.
- (958) Il ira loin dans la vie.
- (959) You are going too far (in your attempts to win).
- (960) Vous allez trop loin (dans vos tentatives de gagner).
- (961) Go lightly on the butter.
- (962) Vas-y doucement avec le marteau: tu vas casser le mur!

Note that unlike modifiers expressing speed (e.g. vite in (953)) and extent (e.g. loin in (958) and (960)), adverbs of intensity do not imply orientation to an endpoint. Hence, in (962), in order to obtain an action reading (which relies on the presence of a temporal endpoint), the

¹²⁷ See Lamarche (1998) on ALLER's ability to refer to an action provided by discursive context: "Comme la situation est en quelque sorte donnée, le verbe n'a pas à l'identifier directement : il sert en quelque sorte de *pro*-verbe, dont l'antécédent est une situation déjà présupposée dans le discours" (p. 57).

locative Y is used. When this element is omitted, the sentence becomes slightly less acceptable, as shown in (963).

(963) (?)Va doucement avec le marteau : tu vas casser le mur!

Actions, unlike time periods, can be characterized along a variety of dimensions: we can attribute to them a *measure* along some axis of magnitude other than time. Hence, sentential information suggesting an action reading for GO/ALLER can also come from a complement expressing a limit along some non-temporal dimension. In examples (964) and (965), the PP expresses *completeness*, and we thus obtain the idea of full accomplishment of the action (in this case, 'solving the mystery'). Similarly, when GO and ALLER are combined with a complement describing a limit along the dimension of *effort* as in (966) and (967), the result is a sentence expressing that the action performed involves a certain effort. Likewise, if the complement refers to an amount of money ((968) and (969)), this yields the idea of an action possessing a limit along the dimension of *price*, so we infer that the unmentioned action is a financial transaction.

- (964) He was determined to go all the way to the bottom of the mystery. (Adapted from Webster's Third New International)
- (965) Jean était résolu à aller au fond de ce mystère.
- (966) He went so far as to study the strategies of his adversaries in great detail.
- (967) Il est allé jusqu'à étudier les stratégies de son adversaire jusque dans les moindres détails¹²⁸.
- (968) I'll give you \$500, but I can't go any higher than that. (Longman)
- (969) Je vous donne 500 dollars pour ça, mais je ne peux pas aller plus loin que ça.

We can also be led to interpret GO/ALLER's orientation as referring to an implied action if the verb's modifier describes an element (such as a rule, a desire, etc.) which, according to our world knowledge, constitutes a force capable of influencing the orientation of a volitional being's actions.

- (970) She decided to go by the rules.
- (971) Il y est allé selon son envie.

Another way to provide contextual material to suggest the performance of an action is via the mention of an *instrument* or *means*. One common way to express instrument in French is via a PP headed by the highly general preposition DE, as shown in (972) through (974). Thus, when we combine ALLER with a DE-phrase expressing an instrument or means, this leads us to infer that ALLER refers to an unmentioned action. Given our knowledge about the entity named in the DE-phrase, we infer the specific way in which the entity is used to contribute to the accomplishment of the action's goal. For example, in (975) the argument *chanson* suggests that the action is 'singing or playing an instrument', and further content in the

¹²⁸ This 'extent of effort' interpretation can also be obtained by combining GO with a TO-PP as in *I* went to a great deal of effort/trouble/to great lengths to make this party a success. The impossibility of this particular construction in French (e.g. *Il est allé à beaucoup d'effort afin que cette soirée soit une réussite) may be due to differences in the intrinsic semantics of TO and À which I have not been able to identify. However, cf the acceptable sentence *Il* y est allé de beaucoup d'effort, an use which I account for below.

sentence indicates that this singing/playing constitutes a contribution to the activity 'dancing'. In (976), the means referred to by the DE-phrase is an amount of money. Given our knowledge of money and of the other elements involved in the situation, we infer that the action is a *purchase*. Note the presence in these sentences of the general localizer Y, without which there would be no element to provide the notion of end localization necessary to obtain an action construal of ALLER. Due to the absence of an equivalent to the highly abstract DE in English, this use is impossible for GO, as shown in (977) and (978)¹²⁹.

- (972) Jean a tué Paul d'une balle à la tête.
- (973) Il est entré en poussant du coude.
- (974) Elle était chaussée de hautes bottes. (
- (975) Il y est allé de sa chanson, (et tout le monde s'est mis à danser).
- (976) J'ai dû y aller **de toutes mes économies** (pour acheter cette maison). Grand Robert de la langue française)
- (977) *He went of/from his song, and everyone began to dance.
- (978) *I had to go of/from all of my savings to buy this house.

In the 'action' examples examined so far, information about the nature of the unmentioned action is obtained at least partly from sentential elements such as modifiers or complements. But when background knowledge about the extra-linguistic situation strongly and unambiguously identify the intended action, no explicit sentential information is needed. This

¹²⁹ As I showed in my discussion of the 'recent past' use of VENIR (section 4.12), the absence of a direct DE-equivalent in English is also at the root of the impossibility of the 'recent past' sense for COME. For the present 'means/instrument of action' use, one might object that English does have other prepositions such as WITH which are capable of expressing the notion of instrument/means, but which nonetheless do not allow us to obtain an 'action' use with GO: *He went with his song, and everyone began to dance; *I had to go with all of my savings to buy this house. However, this is equally true of WITH's French equivalent AVEC: *Il y est allé avec sa chanson/ses économies... Crucially, prepositions like AVEC/WITH can be assumed to have richer, more specific semantic content than DE, for the latter is far more multifunctional. The identification of the semantic properties of these specific instrument prepositions that make them inadequate to obtain an 'instrument/means of action' reading with GO/ALLER goes beyond the scope of this study.

is the case, for example, in the context of a sport or other game in which the context unambiguously indicates that the agent's action is to *play successfully* and thus to *win* (by doing whatever specific actions are necessary to win). Thus, GO and ALLER can be used to express encouragement to a hearer engaged at the moment of speech in an action of this kind, in sentences such as (979) and (980).

- (979) Go John, you can do it!
- (980) Vas-y, Jean, t'es capable!

Once again, in the case of ALLER, the locative Y is necessary in order to provide the notion of endpoint; otherwise the sentence is unacceptable, as shown in (981) below. Note that ALLER can be acceptably used without any complement *only* when the verb is in the 2nd person plural (982). This morphological restriction points to a case of phraseology: the 2nd person plural use in (982) is not a free, compositional use of ALLER, but rather a frozen, lexicalized form (perhaps with the status of an interjection). In contrast to ALLER, in the case of GO, which contains end-localization, no complement is needed to obtain an action use, be it in the singular or the plural (983) and (984).

- (981) *Va Jean!
- (982) Allez les Nordiques!
- (983) Go John!
- (984) Go Habs, go!

When context and/or background knowledge strongly indicates that the referent of GO/ALLER's subject is expected to perform an action but has not yet begun this action at the moment of the utterance, we naturally infer that the sentence describes 'beginning an action', as in (985) through (988). Once again, since ALLER does not intrinsically express orientation

toward localization at an endpoint, it cannot express action unless the explicit locative Y is used to provide this notion¹³⁰.

- (985) (In the context of a board game) You can go now: it's your turn.
- (986) The preparations have been completed and we're ready to go. (Longman)
- (987) Vas-y, c'est ton tour maintenant./*Va, c'est ton tour maintenant.
- (988) Les préparatifs sont terminés et nous sommes prêts à *(y) aller.

In certain cases, when context is sufficiently rich, GO can even be used to refer to a highly specific action such as a bodily function. Thus, in (989) GO expresses urination or defecation. ALLER's highly general semantics is inadequate for us to obtain such a specific sense. On the one hand, it does not contain the localization necessary to set up a temporal reading – and thus an action reading – without some element in the sentence to provide the notion of localization (construable as temporal endpoint). On the other hand, including an element like Y presumably not only contributes the notion of endpoint but also crucially foregrounds this notion and thus insists on end-state rather than on the process itself, making ALLER inadequate for the expression of a bodily process like the ones involved here¹³¹.

¹³⁰ It should be noted that in some dialects/registers of English, it is possible to explicitly specify the action being begun via a TO+GERUND complement, as in *They went to fighting among themselves*, as construction that is impossible in French, whose closest equivalent to the English gerund is the infinitive: *Ils sont allés à se battre. Given that that this use of GO appears to be subject to dialectal variation, I have excluded it from the present analysis. Note that the sentences becomes acceptable when the verbal complement is introduced by a limit-expression (*They went so far as to fight; Ils sont allés jusqu'à se battre*). This corresponds to the 'extent of action' use discussed above.

¹³¹ Although this use once existed for ALLER, it is judged by modern speakers as odd: *Une bonne médecine composée pour hâter d'aller* (Molière, cited in the *Grand Robert de la langue française*). As for informal transitive expressions in which a determinerless complement specifies the bodily function in question (e.g. *go pee*), I consider these to be at least potential idiomatic expressions.

- (989) Can we stop at the next gas station? I really have to go!
- (990) *Est-ce qu'on peut s'arrêter à la prochaine station d'essence ? Je dois vraiment (y) aller!

So far we have looked only at 'action' uses of GO/ALLER in which the subject refers to a human. However, world knowledge tells us that like humans, certain machines can also carry out actions on their own. Thus, just as the presence of a human subject can lead us to construe GO's meaning as describing an implied action, when GO is combined with a subject referring to a machine associated (in our world knowledge) with an easily identifiable function/operation, as in (991) below, we obtain a 'function/operation' use.

(991) He finally succeeded in getting the motor to go.

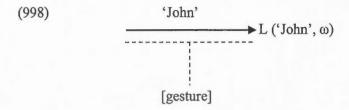
But whereas humans typically carry out actions that are intentionally directed at achieving some desired outcome, machines carry out processes non-volitionally. Since the machine itself cannot be seen as being oriented toward a future *desired outcome*, this semantic use is not compatible with the explicit expression of an endpoint, which, as pointed out above, has the effect of foregrounding the endpoint of the process. In the case of GO this does not pose a problem: this verb already contains the localization needed to provide the notion of endpoint, so it does not require explicit mention of this endpoint on a separate lexical item. But since ALLER does not contain such an element and therefore relies on Y to provide the endpoint, it is inadequate to express the function/operation of a machine, as (992) and (993) show. Moreover, for both verbs, when the subject refers to an inanimate object that cannot function autonomously (and thus cannot be seen as having its own orientation toward accomplishing something), neither verb can be used to obtain this sense, as shown in (994) and (995).

- (992) *Il a enfin réussi à faire aller le moteur.
- (993) *Le moteur (y) va.
- (994) *The knife is going. (intended meaning = 'cutting')
- (995) *Le couteau va. (intended meaning = 'cutting')

5.13 Iconic specification of GO-action

As I showed in the preceding section, GO and ALLER can be used to describe an action situation when there is sufficient support from contextual information and/or background knowledge. Aside from linguistic means of describing an action, we also have at our disposal paralinguistic means of achieving this end. That is, when an action has visual or auditory properties that can be imitated iconically – i.e. imitated via gesture or sound – such imitations can be used to describe the content of the action. Thus, just as a linguistic element functions as a modifier and leads us to construe GO as referring to an action (available from context), if we use as a modifier of GO a paralinguistic element that represents an action by re-creating some of its perceptual properties, this once again leads us to interpret GO as referring to an action. One way to represent an action iconically is to imitate its visual properties, i.e. via gesture, as in (996) and (997). In these examples, GO is accompanied by a simultaneous or temporally juxtaposed physical movement on the part of the speaker. Combining the linguistic and paralinguistic elements present in the speech act in (996) with the verb's semantics, we obtain the representation in (998). We most naturally interpret the iconic gesture as describing the manner of the situation referred to by GO. Hence, the sentence indicates that the GO-action consists of a movement whose visual properties are specified iconically via the gesture.

- (996) John went (like this) [gesture], but I couldn't tell what he was pointing at.
- (997) In one scene of the movie, the clown slips on a banana peel and goes (like this) [gesture].



Given that events are perceived primarily via the senses of sight and hearing, the other logically possible way to describe an event iconically is by producing sounds. In (999) below, the element following GO is an onomatopoeia, i.e. an acoustically iconic linguistic sign. The hearer infers from the characteristics of this sound (together with the temporal orientation of GO, construed as the temporal orientation of an event) that this sound is meant to stand for an event with certain auditory properties. On the other hand, when the subject refers to a piece of music, two different types of iconic modifiers (or a combination of both) can be used. This follows directly from our real-world knowledge of music: the latter involves melody, but it can also optionally involve linguistic content, i.e. words. Thus, in (1000) below GO is followed by 1) a hummed melody, 2) a string of words, or 3) a string of words accompanied by the corresponding melody, depending on the exact nature of the referent (i.e. instrumental or vocal music) and on the aspect of the music that the speaker wishes to focus on (music only, or words and music). This material functions iconically to describe the properties of an event, and we thus construe GO as referring to an action 132.

(999) When the balloon popped, it went (like this): "bang!"

(1000) Remember that song? It goes (like this): [melody and/or words].

Like noises and music, speech acts are also events that can be represented iconically, in this case, in the form of either auditory or written material. This is precisely what we do when we use direct discourse (the verbatim reproduction of an utterance) as in (1001) below. Thus, in (1002), where GO is followed by an utterance, there is an auditory or textual imitation of the event via *linguistic* material. We infer that the action to which GO refers is a speech act, and

¹³² Although a song is not in itself an event, it can only be experienced via an event, i.e. by being performed or played (whether live or via a recording).

the linguistic material following GO provides us with the precise content of this speech act. The use in (1003) is similar, except that the subject is a text rather than a person. Here we infer from our world knowledge about texts (complex elements composed of linguistic signs) that the adjunct consisting of a chain of words refers to the content of the text itself. Note that nouns denoting texts like *story* are acceptable in the 'action' use of GO because they can be construed metonymically as actions: a story (or other text) has a temporal dimension when we read or recite it.

- (1001) You know what John said when I asked him about the broken dish? "Don't blame me! I didn't do it."
- (1002) I told her the news, and then she went: "No way!"
- (1003) The story goes like this: once upon there was a princess who...

Note that despite superficial appearances, these uses do not involve a transitive structure. Rather, the iconic element functions as a modifier, as evidenced by the fact that inclusion or omission of the demonstrative expression *like this* (see examples above) to introduce the iconic element has no impact on the semantic relation between this iconic element and GO. Because the 'iconic specification of action' uses do not simply involve the use of paralinguistic means (gestures, sounds) *in parallel to* speech, but rather the use of these paralinguistic elements as *modifiers* of a linguistic element (GO), these uses tend to appear in the informal register, a register in which the boundary between linguistic and paralinguistic elements is more easily blurred than in neutral or formal settings.

We saw in the preceding section that since ALLER does not contain localization and thus cannot provide the (temporal) endpoint on which an action construal depends, it is more limited than GO in its ability to describe actions. Crucially, iconic paralinguistic modifiers such as gestures and sounds merely describe the manner of an action: they do not provide the notion of endpoint. Consequently, it is impossible to use such iconic elements in combination with ALLER to obtain the 'iconic specific of action' reading observed for GO, as shown in (1004) through (1007). Note that inclusion of the locative Y to express endpoint does not improve the acceptability of these sentences. This is because Y has the effect of foregrounding the endpoint, placing emphasis on temporal progression toward the outcome

of the event. This foregrounding of outcome is incompatible with the uses under examination in the present section, which center on the event's perceptual properties rather than its outcome.

- (1004) 'gesture': *Elle est allée comme ça avec sa main [gesture].
- (1005) 'sound': *Le ballon est allé « bang !».
- (1006) 'music': *La chanson va (comme ça/ceci)[humming/singing/reciting lyrics]
- (1007) 'verbal communication': *Je lui raconte la nouvelle, puis elle va: « c'est impossible, ça se peut pas! ».

The same observation does not hold for texts, however: since our world knowledge tells us that a text contains an intrinsic, fixed endpoint that is reached inevitably whenever we read entirely through it, a subject referring to a text can provide the notion of endpoint needed to arrive at a temporal construal of ALLER, making sentences like (1008) acceptable.

(1008) 'text': L'histoire va comme suit: il était une fois une princesse qui....

Finally, it should be noted that unlike ALLER, the French verb FAIRE can be used in roughly the same range of contexts as GO with an 'iconic specification of action' reading, as shown in examples (1009) and (1010). However, the identification of the semantic property responsible for FAIRE's iconic use goes beyond the limits of the present study.

- (1009) Elle a fait comme ça avec sa main [gesture].
- (1010) Le ballon a fait « bang!»

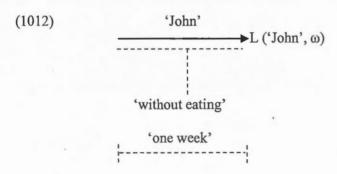
5.14 Non-occurrence

We have already seen that when world/context/background knowledge strongly suggests that an entity X (e.g. a person or machine) is expected to be involved in a given action, and the subject of GO refers to this entity, GO's orientation can be interpreted temporally, yielding the idea that the entity (standing metonymously for the action it is performing) is oriented toward localization at the action's temporal endpoint. Hence, GO expresses that the entity is effectively performing the action. But crucially, GO's semantics does not intrinsically encode

the notion of action or of effective performance. Thus, the other logical possibility is also compatible with GO's semantics: we can use GO to describe a situation in which the expected action *does not occur*.

When we combine GO with a subject referring to an entity, and when GO is accompanied by explicit modifiers specifying 1) a period of time and 2) a state of *non-occurrence* of some action, as in (1011), we obtain the compositional meaning schematized in the representation in (1012).

(1011) John went for one week without eating.



This meaning is paraphrasable as: 'John is oriented toward being localized at the endpoint ω , this orientation holding during a period of one week and being characterized by the property without eating'. The temporal expression 'one week' brings us to interpret GO as describing orientation toward a temporal endpoint (i.e. end localization at ω). In other words, a bounded temporal period is being predicated of John.

The modifier without eating expresses a property that holds during this time period and which consists of the absence of an action. Since the property is described as applying during only a specific time period, we infer that outside this period, the property does not hold. In other words, John's default property is one of eating on a regular basis, an inference that is reinforced by world knowledge according to which humans typically eat several times every day. The full meaning obtained for the sentence is thus paraphrasable as follows: 'During a period of one week, John was oriented toward the endpoint of the period and had the exceptional property of not eating'.

We have already seen that simply stating that an entity (e.g. a person) is oriented toward a temporal point is uninformative, because we view all entities as being subject to the inevitable flow of time. Thus, when GO is used to predicate a temporal orientation of an entity, we look to background and contextual knowledge for information to make the sentence informative. In the preceding section, we saw that when background knowledge provides a salient, easily identifiable action in which the entity is involved, we take GO's subject to stand metonymously for this action, with GO describing the action's orientation toward its own endpoint. In (1011) above, an explicit component of the sentence – without eating – describes the absence of an action; so here, the subject entity stands metonymously for an expected but unrealized action involving that entity, and GO is taken to describe the passing of time (orientation toward an endpoint) during this period of non-occurrence.

Since all events automatically inherit time's intrinsic orientation, any sentence describing an event automatically implies a temporal orientation toward an endpoint. Consequently, the use of GO to describe an event's temporal orientation gives this event a marked status and signals a departure from the unmarked situation. Moreover, marked, negative forms such as without (1013), only (1014) and adjectives formed with a privative morpheme like un- ((1015) through (1017)) or bare- (1018) all explicitly present properties as marked, and hence they are compatible with GO's foregrounding of the temporal orientation 133.

¹³³ The insight in this paragraph is due in large part to Denis Bouchard (personal communication).

- (1013) The volcano went forty years without erupting.
- (1014) John went for a week eating only bread.
- (1015) The dishes went unwashed/without being washed for two days.
- (1016) The letter went unread/unanswered for months.
- (1017) His warnings went unheeded for a long time.
- (1018) John went barefoot/bareheaded for a week.

On the other hand, in general, formally unmarked adjectives and verbs express unmarked properties. And since such properties are not special, they are incompatible with the foregrounding effect produced by GO, as shown in (1019) through (1022). As for the partial acceptability of (1023) and (1024), it is due to world/background knowledge about the entities and actions involved. In (1023), the speaker's presentation (via GO) of 'eating bread' as a marked property is marginally acceptable if we know that John never eats bread, that he cannot stand the taste of bread, etc. Likewise, sentence (1024) is marginally acceptable if we know that John never wears a hat/shoes, if he finds the wearing of these items as highly uncomfortable, etc.

- (1019) ??The volcano went for forty years erupting.
- (1020) *The dishes went washed/being washed for two days.
- (1021) *The letter went read/answered for months.
- (1022) *His warnings went heeded for a long time.
- (1023) ?John went for a week eating bread.
- (1024) ?John went for a week wearing a hat/shoes.

When the time expression is omitted, as in (1025) through (1027), the effect is to background the interval's precise duration, which we are left to infer from background knowledge. In such cases, the temporal endpoint could be virtually any time, including the maximally distant temporal boundary corresponding to the duration 'forever'.

- (1025) The letter went unread/unanswered.
- (1026) His warnings went unheeded.
- (1027) John likes to go barefoot/bareheaded.

Unlike GO, ALLER's intrinsic content provides no temporal endpoint. We saw above that when background knowledge provides an easily identifiable action and contextual material (such as a modifier expressing speed) strongly suggests an event, we can obtain an 'action' use for ALLER, as in (1028). But in the 'non-occurrence' use illustrated above for GO, the verb is used in combination with a negative/marked modifier to express that an expected event *does not occur*. While events can be qualified in terms of properties such as speed, non-events cannot. Hence, the 'non-occurrence' use is incompatible with modifiers expressing temporal properties like speed, as shown in (1029). And crucially, without such elements, we cannot use ALLER to construct the notion of orientation toward a temporal endpoint. As a result, the 'non-occurrence' use is impossible for ALLER, as shown in (1030) through (1033).

- (1028) Jean va vite.
- (1029) *John went fast for one week without eating.
- (1030) *Jean est allé deux semaines sans manger.
- (1031) *L'auto est allée deux semaines sans être lavée.
- (1032) *Toutes ses lettres sont allées sans réponse.
- (1033) *Jean aime aller sans chaussures/sans chapeau.

Before moving on, note that in the case of (1030), replacing the verb ALLER with PASSER (the equivalent of English SPEND in its temporal use) makes the sentence acceptable. This is to be expected, under the reasonable assumption that PASSER contains in its semantics the idea of a person being in a given state for a bounded interval of time. Note also that sentences like (1033) are acceptable with a 'motion' reading, but not with the abstract, stative reading being discussed here.

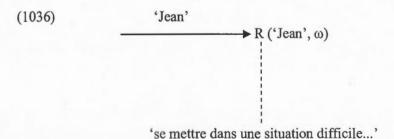
5.15 GO/ALLER + VERB: negative evaluation of action

We saw above (section 5.2) that when GO/ALLER is combined with an adjunct verb expressing an action, one possible interpretation is a 'motion + action' situation: the subject's referent (a concrete, mobile entity) undergoes a motion through space and performs an action either during or at the end of this movement, as in (1034).

(1034) Va aider ton frère à mettre la table.

However, since GO and ALLER do not intrinsically encode notions of movement or space, 'motion' is not the only possible reading for the combination GO/ALLER + ACTION-VERB. In particular, the deictic center ('that which is accessible to an SC') and its negative counterpart ω ('an element other than the deictic center') can receive an abstract interpretation if context and background knowledge support such a reading. This is the case in sentence (1035), where the adjunct INF phrase se mettre dans une situation difficile expresses an abstract action. Recall that in a progredience construction such as this, the INF applies to the relation encoded in the main verb's semantics. So here, the INF phrase is taken as describing the relation R which holds at the end of the orientation between 'Jean' and ω , as schematized in (1036).

(1035) Jean est allé se mettre dans une situation difficile/défavorable.



Crucially, actions can be abstractly accessible to us by belonging to our habits, beliefs, etc., so the implied deictic center can be interpreted as 'the SC's way of acting, habits, beliefs, etc.'. ALLER+INF can thus be used to express that 'by doing the INF-action, X establishes a relation with something outside the SC's own behavior/beliefs/etc.'. More specifically, in (1035) the speaker expresses that by carrying out the INF-action, Jean distanced himself from 'my way of doing things'.

The precise reasons for the negative evaluation expressed by this semantic use are determined by background knowledge. In (1035), by suggesting that the difficult/unfavorable situation was avoidable, the speaker implies that he considers Jean's actions to be unwise. In (1037), due to the element ridicule, the speaker's negative judgment takes the form of strong (perhaps mocking) disapproval of the action. In (1038), context and background knowledge suggest a slightly different reading. Since the INF-action consists of an affirmation of a mental content ('que le sujet de la phrase monte'), the action's lying outside the world as immediately accessible to the speaker is specifically construed as lying outside truth according to the speaker, i.e. the speaker's beliefs. In sum, the speaker is suggesting that Jean's affirmation is erroneous or untrue. In (1039), 'telling the secret' is appraised as 'wrong' in some sense by the speaker, but only further context and/or background knowledge can indicate whether this judgment is based on moral, practical, logical, etc. reasons. Note that sentences like (1038) and (1039) contain no lexical elements other than ALLER explicitly indicating a negative judgment. For this reason, taken out of context, they are ambiguous with a concrete progredience reading. However, if we know that Jean did not undertake any movement in order to accomplish the action (for example, if the speech acts described in these sentences were carried out over the phone), the ambiguity disappears and only an abstract 'negative evaluation' reading is possible.

- (1037) Jean est allé se mettre dans une situation ridicule.
- (1038) Jean est allé dire que le sujet de la phrase monte 134.
- (1039) Jean est allé raconter le secret à tout le monde.

Because this semantic use expresses a negative judgment on the part of the speaker (based on a comparison between himself and X's action), it is also compatible with situations of admonition, such as example (1040). In this sentence the speaker tells 'you' not to create some relation R with ω by the action 'imagine that...'. Given the nature of the action

¹³⁴ Example pointed out by Denis Bouchard (personal communication).

'imagine', we infer (as in (1038) above) that the speaker's negative evaluation is based on Jean's own beliefs lying outside the realm of truth (as determined by the speaker).

(1040) N'allez pas imaginer que j'ai l'intention de vous aider.

The analysis presented here departs from that of Bouchard (1995), who proposes that in this semantic use, the anti-deictic center indicates that the action involves or impacts people other than the speaker. That is, the world is portrayed as the witness of the action (p. 158-160). Crucially, such an analysis cannot account for sentences such as N' allez pas imaginer que..., in which the INF-action is an internal event, i.e. a psychological state undergone by X, for this type of state is inaccessible to the world-as-observer. Instead, as I have shown here, the common thread uniting examples like (1035) through (1040) lies in the construal of ω as 'actions that lie outside the speaker's way of acting/thinking'.

Like ALLER, GO does not intrinsically encode notions of space or movement, so its meaning is *a priori* compatible with the abstract 'wrong action' use illustrated for ALLER. However, as we saw in section 5.2.2, due to properties of the English bare INF the English progredience construction is restricted to sentences where GO is itself in the bare infinitive form preceded by a modal (1041) or future marker (1042), or when it is in the imperative (1043); elsewhere it is impossible (e.g. (1044) and (1045)).

- (1041) He intends to/can/must/should/etc. go buy some bread. (Modal + INF)
- (1042) He will go buy some bread. (Future)
- (1043) Go buy some bread! (Imperative)
- (1044) *He goes buy(s) some bread. (Present)
- (1045) *He went buy (bought) some bread. (Past)

For the same reason, an attempt to directly translate sentences (1037) and (1039) into English yields unacceptable utterances, as shown in (1046) and (1047) below. If, on the other hand, GO is in one of the morphological forms that are compatible with progredience, the use becomes acceptable ((1048) through (1050)).

- (1046) *John has gone get/put himself into a ridiculous situation.
- (1047) *John has gone tell the secret to everyone.
- (1048) I just knew John would go get/put himself into a ridiculous situation.
- (1049) I know John will go get/put himself into a ridiculous situation (again).
- (1050) Now don't go ruin the surprise by telling everyone.

Because GO/ALLER+INF can be construed abstractly to convey a negative judgment, and because it is common in both languages to use negatively connoted action verbs figuratively and in the imperative to express insults (e.g. (1051) and (1052)), it is not surprising to find that the GO/ALLER+INF construction can also be used to form an insult, as in examples (1053) and (1054). Here, the INF adjunct describes a negatively connoted (i.e. unpleasant) action, and this negative connotation is reinforced by ALLER's semantics: these actions are depicted as lying (far) outside 'what the speaker would do'.

- (1051) Bite me!
- (1052) Mange d'la marde! (Queb.)
- (1053) Go hang yourself!
- (1054) Va te faire foutre!

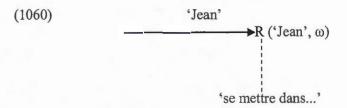
Because GO and ALLER differ in the nature of the intrinsic end-relation they express, differences arise for the expression of 'negative evaluation'. First, recall that the 'motion + action' sense can be expressed not only via GO +INF, but also via GO + AND + VERB, as in (1055). Similarly, in a context supporting construal of ω as 'things lying outside the speaker's behavior/beliefs', as in (1056) through (1058), the action expressed by the second verb in the coordination is depicted as distinct from what the speaker would do and hence as somehow wrong¹³⁵.

¹³⁵ For an alternative, cognitive semantic analysis of this GO + AND + V construction in terms of image schemas, see Matsumoto (2010).

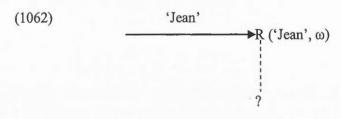
- (1055) Go and help them set the table.
- (1056) Don't go and imagine that I intend to help you!
- (1057) John went and told everyone the secret.
- (1058) John has gone and lost the car keys again!

But as we have seen elsewhere, because ALLER's end-relation component is maximally general, this verb tends to be incompatible with uses in which no sentential element provides information about the nature of the end-relation. Thus, unlike sentence (1059), in which the INF adjunct applies to R (as schematized in (1060)), when the second verb is linked by a coordinating conjunction (e.g. sentence (1061), represented in (1062)), there is no element to directly provide information about the relation with ω . Thus, we do not have the necessary information in the semantic structure to arrive at a construal of R ('Jean', ω) as 'John's doing something that lies outside the speaker's own behavior/beliefs'.

(1059) Jean est allé se mettre dans une situation ridicule.



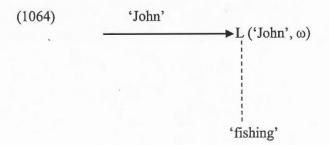
(1061) *Jean est allé et s'est mis dans une situation ridicule.



'Jean s'est mis dans...'

Recall that the construction GO + V-ing can also yield a 'motion + action' reading: when GO is used with a V-ing modifier expressing a concrete action, as in (1063), V-ing can apply to the end-relation $L(X, \omega)$, producing the compositional meaning: 'John underwent movement to a location other than the SC's location, and at that location, he undertook the action of fishing', with world knowledge allowing us to infer that 'fishing' is the purpose of the movement in question. When instead the V-ing verb (together with information from context and/or background knowledge) favors an abstract construal and suggests disapproval on the part of the speaker, as in (1065) and (1066), we obtain a 'negative evaluation' reading.

(1063) John went fishing yesterday.



- (1065) It's a secret, so don't go telling everyone.
- (1066) Don't go imagining that I intend to help you.

Finally, we have already seen that due to properties of the French "gérondif" en V-ant, the latter cannot be taken to modify the end-relation of ALLER's orientation, accounting for the unacceptability of the spatial use in (1067). For the very same reason, ALLER + V-ant cannot be used to express 'negative evaluation' in sentences like (1068) and (1069).

- (1067) *Jean est allé au lac en pêchant.
- (1068) *C'est un secret, alors ne va pas en le racontant à tout le monde!
- (1069) *N'allez pas en imaginant que j'ai l'intention de vous aider.

In the present chapter I have examined in detail the various senses observed for the verbs GO and ALLER. As in the previous chapter on COME and VENIR, I have demonstrated that these uses, though highly diverse in terms of the specific situations they describe, all follow

from a single semantic representation. Both GO and ALLER express 'orientation toward a relation with the anti-deictic center ω , a point other than o', so these verbs share many of the same contextual uses. On the other hand, because they encode a different end-relation (localization in the case GO vs. the maximally general R in the case of ALLER), and because the range of possible contextualized uses of these verbs is determined in part by properties of the English and French grammar and lexicon, GO and ALLER show many differences in the specific situations that they can be used to describe.

CONCLUSION

The present dissertation in lexical semantics has examined the phenomenon of polysemy (i.e. the existence of multiple, related senses for a single word) from two angles: first, the problem of polysemy's status in the lexicon, and second, the problem of the causes for cross-linguistic variation of polysemy. These issues have been examined with English and French deictic verbs capable of expressing situations of 'motion' (COME, GO, VENIR and ALLER). More specifically, this study has addressed the following research questions:

- Question 1: Are English and French deictic motion verbs lexically monosemous?
- Question 2: Why do these verbs show the cross-linguistic similarities that we observe
 in their uses?
- Question 3: Why do these verbs show differences that we observe in their uses?

To answer these questions, I consulted dictionaries, a small corpus and speaker intuitions and this allowed me to identify for these four verbs a broad set of possible senses spanning across many different domains. I then identified the invariant lexical semantic content of the each of these verbs by analysing them within the dual framework of Bouchard's (1995) monosemist approach and the Sign Theory of Language (Bouchard, 2002, in press).

Thus, in response to my first research question, the English and French deictic "motion" verbs COME, GO, VENIR and ALLER are monosemous. As shown in Chapter III, each of these verbs has a single, abstract representation consisting of a small number of components. Moreover, I showed in Chapters IV and V precisely how these representations, in combination with inferences based on contextual, background and world knowledge, account for all of the semantic uses discussed in this study. The high degree of contextual polysemy of these items follows from the highly abstract character of their invariant semantic components ('orientation', 'Subject of Consciousness', 'accessibility', 'localization', and the maximally general combinatorial relation R), which can thus take on a virtually limitless number of manifestations depending on context.

In response to Question 2, the reason that these pairs of verbs share a large number of senses is that each English verb is nearly identical in semantic structure with the corresponding French verb. That is, COME and VENIR both express that 'X is oriented toward being in some relation with the deictic center, i.e. a point that is accessible to an SC'. Likewise, GO and ALLER both express that 'X is oriented toward being in a relation with the antideictic center, i.e. a point other than the deictic center'. That these semantic components surface from one language to another is not surprising, for as I show in Chapter III, these components are rooted in general (i.e. extralinguistic) cognition.

In response to Question 3, differences in the semantic uses of the pairs of motion verbs examined in this study follow first and foremost from the fact that their invariant meanings differ via a single pair of highly abstract components: the English verbs contain localization (L) as an end-relation, while their French counterparts contain the maximally general combinatorial relation R. Because the semantic representations of these verbs are highly abstract, this slight difference in invariant meaning interacts with non-lexical knowledge to give rise to abundant surface differences. In addition, the two languages differ in their grammatical systems and in the set of lexical items available to act as arguments, and these asymmetries also bring about cross-linguistic differences in the ways the each verb can be used.

The monosemous approach adopted in the present study has thus made it possible to propose an analysis of polysemy and variation that is both far-reaching and parsimonious. The results obtained provide strong support for the idea that words tend to be lexically monosemous and that their semantic components (both those that recur cross-linguistically and those that vary) are rooted in properties of general cognition. Thus, contrary to what is affirmed in polysemist approaches – in particular Cognitive Semantic analyses – the variety of senses of these verbs is not due to the existence of multiple meanings forming a complex network organized around prototypical 'motion' uses and structured by mechanisms such as metaphor. As pointed out by Bouchard (1995), the 'motion' uses of these verbs, together with all of their other uses, are merely the product of contextualized construal of the invariant meaning of each verb.

The findings of the present dissertation are relevant to several domains of research in which polysemy and cross-linguistic variation are studied. First and foremost, by providing crucial insight into the lexical status of polysemy and the causes of cross-linguistic variation, this study contributes to the understanding of two problems at the heart of current theoretical work in lexical semantics. In addition, these findings are relevant to psycholinguistic research on the mental lexicon, a field in which experimental evidence does not, at present, show a clear tendency toward single-entry or multiple-entry storage of meaning. Finally, the insight provided by this study is relevant to the fields of second language acquisition/pedagogy and natural language processing, two domains in which polysemy and its cross-linguistic variation pose a considerable challenge.

The approach adopted in this study needs to be pursued in the form of in-depth, detailed analysis of semantic uses of other verbs exhibiting a high degree of intra- and cross-linguistic sense variation, such as other "motion" verbs and other semantic classes of verbs (e.g. physical contact, as in Ruhl, 1989; perception, as in Piron, 2006; and verbs describing speech acts and mental events). Research within this approach must also be extended to other word categories, in particular adjectives as well as nouns. One interesting problem will be to determine whether, like the "motion" verbs studied here, polysemous nouns with spatial and abstract uses also possess unified, abstract lexical meanings, or if, instead, nouns exhibit a greater tendency toward lexicalized polysemy. Finally, the present line of research must also be pursued via comparative studies involving several other languages, which will possibly uncover needs to refine the semantic representations proposed here.

APPENDIX A

SPECIFIC SEMANTIC USES OF COME¹³⁶

 $^{^{136}}$ Dictionaries: ODE = Oxford Dictionary of English; WTI = Webster's Third New International; LNG = Longman.

			Disc	cover	Discovered via:	::
Semantic use	Example	Dic	Dictionaries	ries	C	S _l
		ODE	WTI	LNG	Corpus	peaker tuition
1.3 Web navigation	Come to our web site for up-to-date information on the events.				×	
2. Motion + action						
2.1 COME + TO + INF	John came to talk to me yesterday.	×	×	×		
2.2 COME + AND + V	Come and help us set the table.	×	×	×		
2.3 Progredience	Come see what I've found.					×
2.4 COME + V-ing: manner of movement	When I called John, he came running to see what was the matter.	×	×	×		
2.5 COME + V-ing: motion with purpose	John came fishing with us yesterday. John came asking for help yesterday.	×	×			

			Dis	cover	Discovered via:	
Semantic use	Example	Dic	Dictionaries	ries	С	Sp
		ODE	WTI	LNG	orpus	eaker tuition
3. Static spatial extension						
3.1 Extension from source	This road comes from Montreal.					×
3.2 Extension over a path	The path comes through the valley. (WTI)	×	×			
3.3 Measure/extension to a point	Jean comes up to my shoulder.	×	×	×		
4. Actualization						
4.1 General occurrence	When the time comes to leave, I am always sad.	×	×	×		
4.2 Imminence	Winter is coming.		×			
4.3 Social existence	Those who came before us faced much harsher living conditions.					×
4.4 Birth	When the baby came, the family's routine changed.				,	×
4.5 Progress/development	Computer technology has come a long way since the 1970s. (LNG)	×		×		

5.1 General individual experience 5.2 Event with consequence 5.3 Intellectual/emotional impact The decision c		-38		7	Discovered via:	.: .:
ndividual experience General individual experience Event with consequence Intellectual/emotional impact	Example	Die	Dictionaries	rries	C	
ndividual experience General individual experience Event with consequence Intellectual/emotional impact		ODE	WTI	LNG	orpus	eaker tuition
General individual experience Event with consequence Intellectual/emotional impact						
Event with consequence Intellectual/emotional impact	Good fortune will come to you if you are patient.		×	×		
	The diplomatic crisis came at the cost of many lives (at the cost of the lives of many innocent civilians).				×	
	The decision came as a great relief (for everyone).	×		×		
5.4 Sight The building c	The building came into sight.					×
5.5 Sound The sounds of	The sounds of birds came to him through the window.	×	×			
5.6 Smell The smell of li	The smell of lilacs came to him from around the corner.					×
5.7 Communication The call came	The call came too late: John had already left.	×				
5.8 Physical symptom Tears came to his eyes.	e to his eyes.					×
5.9 Mental occurrence An idea came to me.	me to me.	×	×			

			Dis	Discovered via:	ed vi	::
Semantic use	Example	Dic	Dictionaries	ries	C	Sp
		ODE	WTI	LNG	orpus	eaker tuition
5.10 Orgasm	He/she came.	×	×	×		
6. State-entering						
6.1 Basic state-entering	John came to the conclusion that Mary had been lying.	×	×			
6.2 Shifting of attention	To come to the main topic of our discussion, I would now like to address the tuition hike.		×			
6.3 COME + TO + INF	He had come to realize that she could not be trusted.	×	×	×		
6.4 Total amount	Your bill comes to 25 dollars.		×			
6.5 Location-reaching	After walking for hours, the weary hikers came to a bridge.	×				
6.6 Fortuitous event	If by chance we come to meet our friends during our trip, we can tell them the news.					×

			Dis	Discovered via:	d via	::
Semantic use	Example	Dic	Dictionaries	ries	C	Sı
		ODE	WTI	LNG	orpus	oeaker tuition
7. COME + ADJ				Ý		
7.1 Mobility/detachment	The shoes came untied.	×	×	×		
7.2 Change to other state	Your dreams will come true.		×	×		
8. Order						
8.1 Order in series	P comes before Q in the alphabet.	To the second	×	×		
8.2 Priority	Freedom comes well before material comfort in my priorities.	×				
8.3 Place in contest	She came in second place among sixty contestants.	*		×		
8.4 Classification	This conflict comes within the terms of the treaty.		×			
9. Origin						
9.1 Etymology/derivation	This word comes from Greek.					×

		ä	Discovered via:	ed vi	::
Semantic use	Example	Dictionaries	aries	C	Sı
		WTI ODE	LNG	orpus	eaker tuition
9.2 Descent/ancestry	John comes from a good family.				×.
9.3 Geographical origin	This man/wine comes from Italy.	×	×		
9.4 Abstract origin/causation	Many mistakes come from carelessness.	×			
10. Possession					
10.1 Inheritance	Several thousand dollars came to him from his uncle.	×			
10.2 Transfer of money	Most of his money comes from investments.			×	
10.3 Acquiring of abstract quality	The spirit of true humility comes to those who seek it diligently. (WTI)	×			
10.4 Habitual possession of abstract quality	Writing/painting/humor comes naturally to her.	×	×		
10.5 Owing	I have another dollar coming to me.	×			

		Ω	Discovered via:	red vi	: :
Semantic use	Example	Dictio	Dictionaries	C	S _l in
		ODE ODE	LNG	orpus	eaker tuition
11. Existence with a property					
11.1 General existence with a quality	Cats come in many shapes and sizes. (LNG)	×	×		
11.2 Availability for purchase	This sofa comes in four different colors.	×	×		
11.3 Beginning of availability	The new iPod is coming to stores/toMontreal/to Canada this spring.			×	
11.4 Abstract accompaniment	Neither nominee will accept the spending limits that come with public funds. (adapted from Corpus)			×	
12. Recent past					
NONE	NONE				
13. COME + VERB: impact on the SC	SC				
NONE	NONE				

APPENDIX B

SPECIFIC SEMANTIC USES OF VENIR 137

			Disc	Discovered via:	d via	
Semantic use	Example	Dic	Dictionaries	ies	C	Sp
		GRF	TLF	LEX	orpus	eaker tuition
1. Motion						
1.1 Motion toward deictic center	Jean vient à Montréal.	×	×	×		
1.2 Motion for communication	Je viens à vous, Seigneur, père auquel il faut croire (Hugo, cited in TLF).	×	×	×		

 $^{^{137}}$ Dictionaries: GRF = Grand Robert de la langue française; TLF = Trésor de la langue française; LEX = Lexis.

		(5,0)	Disco	Discovered via:	via:	
Semantic use	Example	Di	Dictionaries		C	Sp
		GRF	TLF	LEX	orpus	eaker tuition
1.3 Web navigation	Venez sur notre site web pour des informations sur les événements.					×
2. Motion + action						
2.1 VENIR + POUR + INF	Jean est venu pour me parler hier.					×
2.2 VENIR + ET + V	Jean est venu et nous a aidés à mettre la table.					×
2.3 Progredience	Jean vient déjeuner.	×	×	×		
2.4 VENIR + EN + V-ant: manner of movement	John est venu en courant.					×
3. Static spatial extension						
3.1 Extension from source	Cette route vient de Montréal.					×
3.2 Measure/extension to a point	Jean me vient à l'épaule.	×	×	×		

			Dis	Discovered via:	ed via	
Semantic use	Example	Di	Dictionaries	ries	C	Sp int
		GRF	TLF	LEX	orpus	eaker uition
4. Actualization						
4.1 General occurrence	Quand vient le temps de partir, je suis toujours triste.	×	×	×		
4.2 Imminence	L'hiver qui vient	72.				×
4.3 Social existence	Cette décision aura beaucoup d'impact sur ceux qui viendront après nous.	×	×			
5. Individual experience			-			
5.1 General individual experience	La bonne fortune viendra à toi si tu es patient.		×			
5.2 Sight	La citadelle vint en vue.					×
5.3 Sound	Le chant des oiseaux venait jusqu'à lui.					
5.4 Smell	Les odeurs de la campagne venaient jusqu'à lui.	×	×			
5.5 Communication	L'appel est venu trop tard : Jean était déjà parti.					

			Dis	Discovered via:	d via:	
Semantic use	Example	Die	Dictionaries	ries	C	Sp int
		GRF	TLF	LEX	orpus	eaker tuition
5.6 Ailment	Il lui est venu un gros mal de tête.	Aug The L	×			
5.7 Physical symptom	Les larmes lui viennent aux yeux.	×	×	×		
5.8 Mental occurrence	Cette idée m'est venue hier.	×	×	×		
5.9 Orgasm	Il/elle est venu(e).					×
6. State-entering						
6.1 Basic state-entering	Jean en est venu à la conclusion que Marie lui avait menti.	×	×	×		
6.2 Shifting of attention	Vous feriez mieux d'en venir tout de suite au sujet qui vous amène ici.	×	×	×		
6.3 EN + VENIR + \dot{A} + INF	J'en suis venu maintenant à regarder le monde comme un spectacle et à en rire. (Flaubert, cited in GRF)	×	×	×		
6.4 Fortuitous event: VENIR + À + INF	Si Jean venait à perdre son emploi, la famille n'aurait aucune source de revenu.	×	×	· ×		

Semantic use						
	Example	Ď	Dictionaries	ries	C	Sp int
		GRF	TLF	LEX	orpus	eaker tuition
7. VENIR + ADJ						
NONE	NONE					
8. Order		-				
8.1 Order in series	P vient avant Q dans l'alphabet.			×	×	
8.2 Priority	La liberté vient bien avant le confort matériel dans mes priorités.					×
8.3 Place in contest	À la fin du premier tour, notre candidat préféré venait en 5e position avec 12% des votes. (Corpus)		-		×	
9. Origin						
9.1 Etymology/derivation	Ce mot vient du grec.	×	×	×		
9.2 Descent/ancestry	Jean vient d'une bonne famille.	×	×			
9.3 Geographical origin	Cet homme/ce vin vient d'Italie.	×	×	×		

			Dis	Discovered via:	ed via	
Semantic use	Example	Dį	Dictionaries	ries	C	
		GRF	TLF	LEX	orpus	eaker cuition
9.4 Abstract origin/causation	Sa tristesse vient des circonstances.	×	×	×		
10. Possession						
10.1 Inheritance	Ce domaine me vient de ma grand-mère maternelle.	×	×			
10.2 Transfer of money	La plupart de son argent vient de ses investissements.					×
10.3 Acquiring of abstract quality	La vraie humilité vient à ceux qui la cherchent activement.					×
10.4 Habitual possession of abstract quality	L'écriture/La peinture/L'humour lui vient naturellement.					×
11. Existence with a property						
NONE						
12. Recent past						
12.1 Recent past	Jean vient de manger.	×	×	×		

			Disc	Discovered via:	via:	
Semantic use	Example	Dig	Dictionaries	Т	C	Sp int
		GRF	TLF	LEX	orpus	eaker cuition
13. VENIR + VERB: impact on the SC	e SC					
13.1 Impact on the SC	On viendra sans doute dire que j'exagère.	×	×	×		

APPENDIX C

SPECIFIC SEMANTIC USES OF GO

			Disc	Discovered via:	ria:
Semantic use	Example	Dic	Dictionaries		in
		ODE	WTI	orpus LNG	eaker tuition
1. Motion					
1.1 Motion toward anti-deictic center	John is going to Paris this summer.	×	×	×	
1.2 Motion over path	He held the rail as he went down the stairs. (WTI)		×	×	
1.3 Beginning of motion	Go when the light turns green.	×	×		
1.4 Departure	It is late. I really must go.	×	×	×	

1.5 Shift of gaze 1.6 Web navigation 1.7 Document consultation 1.8 Appearance on TV/radio show would run for re-election. 1.9 Transmission of a message 2. Motion + action 2.1 GO + TO + INF 1.5 Shift of far side on hy some bread. The went to the far side on points of the far side on the far side on the far side on the far side of the moise. The went to the original default on the popularities of the original default of the far side of			ı	Scove	Discovered via:	:: ::
MOI MOI	Example	Dic	Dictionaries	ıries	С	
MO MO		ODE	WTI	LNG	orpus	eaker tuition
MOI NO	My eyes went to the far side of the room, where I had heard a sudden noise.		×			
woo	He went to the store's website to check the price of the product.				×	
mon	One must go to the original documents for an account of the colony's early years. (WTI)		×			
	The politician went on the popular television show and declared that he would run for re-election.			E	×	
	The email went to everyone in the company.		×	×		
	nt to buy some bread.	×				
2.2 GO + AND + V Go and help them set the table.	lelp them set the table.	×	×	×		
2.3 Unrealized motion: GO + TO + She goes to get out of the ca	She goes to get out of the car, but then she changes her mind.					×

			Di	scove	Discovered via:	a:
Semantic use	Example	Dic	Dictionaries	ries	C	
		ODE	WTI	LNG	orpus	eaker tuition
2.4 Motion followed by activity (TO + establishment-NP)	Mary goes to school/church/the theater/the cinema/the doctor's office/the hair salon/the store every week.	×		×		
2.5 Motion followed by activity (TO resource-NP)	John and Mary don't know this city well, so they have gone for information.					×
2.6 Motion for communication	If you need advice, you should go to John.					×
2.7 Motion followed by activity (TO + activity-NP)	John does not want to go to war.					×
2.8 Motion followed by activity (FOR/ON + activity-NP)	Let's go for a walk.			×		
2.9 Progredience	John will go eat breakfast.		×	×		
2.10 GO + V-ing: manner of movement	When the waiter tripped, the plates went flying.			×		
2.11 GO + V-ing: motion with purpose	John went fishing yesterday.	×		×		

			ij	scove	Discovered via:	a:
Semantic use	Example	Dic	Dictionaries	ries	C	Sp
		ODE	WTI	LNG	orpus	eaker tuition
3. Static spatial extension						
3.1 Extension to a point	This road goes to Montreal.		×			
3.2 Motion over path	The road goes through the forest.	×	×	×		
3.3 Spatial access	That door goes to the cellar/balcony.		×			
4. Abstract extent						
4.1 Range of amount	The salaries of executives go from 100,000 to 200,000 dollars.		×			
4.2 Temporal extent	The period going from 1939 to 1945		×			
4.3 Range of intensity	Symptoms (can) go from very mild fever to severe pain.		×			
4.4 Link	What is the logical link that goes from intelligence to morality?					×
4.5 Ordered Series	This logical series goes from the simplest of machines to the most complex.					×

			Dis	cover	Discovered via:	::
Semantic use	Example	Dic	Dictionaries	ies	C	Sp
		ODE	WTI	LNG	orpus	eaker tuition
4.6 Static abstract orientation	He quickly realized that in this deal, the favors went only one way.				×	
4.7 Orientation of thought	Our thoughts go to the inhabitants of that flooded village.					×
5. Change of state						
5.1 Change from state 1 to state 2	The sky was going from blue to gray as the clouds appeared.		×			
5.2 State-entering	John went to sleep.	×	×			
5.3 Tendency of change	Many industries have been forced to cut jobs and it looks like the electronics industry is going the same way/in the same direction. (LNG)			×		
5.4 Change in magnitude	The price of fuel was going up. The bidding went (up/all the way) to \$50 before the chair was sold. (WTI)	×	×			
5.5 GO + ADJ	John went crazy.	×	×	×		

			Q	iscov	Discovered via:	
Semantic use	Example	Di	Dictionaries	aries	C	S _I
		ODE	WTI	LNG	orpus	eaker tuition
6. Possession						
6.1 General transfer of possession	The relief funds went to the people who needed it the most.		×			
6.2 Inheritance	The farm went to the eldest son. (WTI)		×			
6.3 Awarding/attribution	The top prize went to a twenty-four-year-old sculptor. (ODE)	×	×			
6.4 Sale	The jewels will go to the highest bidder. (Longman)		×	×		
7. Resource/contribution						
7.1 Ingredient/component	70% of all antibiotics go into animal feed. (Corpus)				×	
7.2 Contribution of money	A large part of the money went into/toward cleaning up the disaster area.	×	×	×	= 1 8	
7.3 Contribution of effort	Much effort goes into the production of plays such as this one.	×	×			

			Di	scove	Discovered via:	a:
Semantic use	Example	Dic	Dictionaries	ries	C	Sp
		ODE	WTI	LNG	orpus	eaker tuition
7.4 Sufficiency of resources	Critics are wondering how far these measures will go toward meeting the needs of those touched by the disaster.	×				
8. Ceasing/ending						
8.1 Ceasing membership	I heard about the job offer John received. If he goes, who will take his place in the company.			×	8	
8.2 Death	John wants his ashes to be scattered at sea when he goes.	×	×	×		
8.3 Coming to an end (subject = inanimate)	These jobs are due to go next year.	×	×	×	rd.	
8.4 Rejection/abandonment	These antiquated policies have to go.		×			
8.5 Loss/theft	?When he returned, his equipment had gone. (ODE)	×		×		
8.6 Breaking/damage	The light bulb is starting to go.		×	×		
8.7 Loss/impairment of sense	My hearing is starting to go.		× .	×		

			Dis	Discovered via:	d via	
Semantic use	Example	Dic	Dictionaries		-	Sp
		ODE	WTI	LNG	orpus	eaker tuition
8.8 Coming to an end (subject = sensation)	Has your headache gone yet?		×	×		
9. Temporal uses						
9.1 Passing of time	Summer is going fast.	×	×	×		
9.2 Future	John is going to write a book.	×	×	×		
10. Evaluation						
10.1 Evaluation of event/progress/development	The exam/dinner party/construction of the bridge went well/is going well.	×	×	×		
11. Appropriateness/ belonging						
11.1 Belonging in a location	That knife goes in the left drawer.	×	×	×		
11.2 Artifact made for specific place	This dish goes in the oven.					×

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			Ď	scove	Discovered via:	
Semantic use	Example	Dic	Dictionaries	ries	C	
		ODE	WTI	LNG	orpus	eaker tuition
11.3 Co-occurrence	Which adjectives go with the word "fear"?	×		mur —		
11.4 Harmonious accompaniment (subject = concrete)	These pants go with that shirt.	×	×	×		
11.5 Harmonious accompaniment (subject = abstract)	These two personality traits do not go (well) together.					×
11.6 Fitting in a space	I don't think all these clothes will go in your suitcase.	×	×	×		
12. Action						
12.1 Manner/extent of action	John is not going fast enough. He'll go far in life.				×	
12.2 Completeness of action	He was determined to go all the way to the bottom of the mystery. (adapted from WTI)		×			
12.3 Extent of price offer	I'll give you \$500 dollars, but I can't go any higher than that. (LNG)			×		
12.4 Extent of effort	I went to a great deal of effort/trouble/to great lengths to make this party a success.		×			

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			ĬΩ	scove	Discovered via:	a:
Semantic use	Example	Die	Dictionaries	ries	C	
		ODE	WTI	LNG	orpus	eaker tuition
12.5 Conformity of action	She decided to go by the rules.		×			
12.6 Encouragement	Go John, you can do it!				×	
12.7 Beginning of action (no complement)	You can go now: it's your turn.		×	×		
12.8 Beginning of action (TO + V-ing)	They went to fighting among themselves. (WTI)		×			
12.9 Toilet	Can we stop at the next gas station? I really have to go!	×	×	×		
12.10 Functioning of artifact	He finally succeeded in getting the motor to go.	×	×	×		
13. Iconic specification of GO-action						
13.1 Iconic description of movement	John went (like this) [gesture], but I couldn't tell what he was pointing at.			×		
13.2 Iconic description of sound	When the balloon popped, it went (like this): "bang!"	×	×	×		

			Disc	over	Discovered via:	
Semantic use	Example	Dict	Dictionaries		C	S _j in
		ODE	WTI	LNG	Corpus	peaker tuition
13.3 Iconic description of music	Remember that song? It goes (like this): [melody and/or words].					×
13.4 Iconic description of verbal communication	I told her the news, and then she went: "No way!"	×		×		
13.5 Content of text	The story goes like this: once upon there was a princess who	×	×	×		
14. Non-occurrence						
14.1 Passing time without acting	John went for one week without eating.	×				
14.2 Passing time without undergoing action	The letter went unread/unanswered for months. The dishes went unwashed/without being washed for two days.			×		
14.3 Passing time in exceptional state	John went barefoot/bareheaded for a week.		×	×		
15. GO + VERB: negative evaluation	of action					
15.1 GO + INF	Now don't go ruin the surprise by telling everyone!					×
		1	1			

			Т)iscov	Discovered via:	a:
Semantic use	Example	Ö	ction	Dictionaries	C	Sp
		ODE	WTI	LNG	orpus	eaker cuition
15.2 Insult	Go hang yourself!	×	×			
15.3 GO + AND + V	John has gone and lost the car keys again.	×	×	×		
15.4 GO + V-ing	It's a secret, so don't go telling everyone!	×	×	×		

APPENDIX D

SPECIFIC SEMANTIC USES OF ALLER

Semantic use L. Motion 1. Motion toward anti-deictic center 1. Motion toward anti-deictic center 1. Motion toward anti-deictic center 1. Motion over path 1. Seginning of motion 1. Seginning o				Dis	Discovered via:	ed vi	;;
Jean va à Paris cet été. Les gens allaient dans toutes les directions. Vas-y: le feu est vert! Il faut vraiment que j'y aille.	Semantic use	Example	Di	ctiona	ries	C	Si
Jean va à Paris cet été. Les gens allaient dans toutes les directions. Vas-y: le feu est vert! Il faut vraiment que j'y aille.			GRF		LEX	orpus	eaker tuition
Jean va à Paris cet été. Les gens allaient dans toutes les directions. Vas-y: le feu est vert! Il faut vraiment que j'y aille.	1. Motion						
Les gens allaient dans toutes les directions. Vas-y: le feu est vert! Il faut vraiment que j'y aille.	1.1 Motion toward anti-deictic center	Jean va à Paris cet été.	×	×	×		
Vas-y: le feu est vert! Il faut vraiment que j'y aille.	1.2 Motion over path	Les gens allaient dans toutes les directions.	×		×		
Il faut vraiment que j'y aille.	1.3 Beginning of motion	Vas-y: le feu est vert!					×
	1.4 Departure	Il faut vraiment que j'y aille.	×				

·			Dis	Discovered via:	ed vi	est
Semantic use	Example	Dic	Dictionaries	ries	C	
		GRF	TLF	LEX	orpus	eaker tuition
1.5 Web navigation	Allez au/sur le site web pour obtenir les informations dont vous avez besoin.					×
1.6 Transmission of a message	Le courriel est allé à tout le monde au département.					×
2. Motion + action						
2.1 ALLER + POUR + INF	Hier Jean est allé au bureau de Paul pour lui parler.					×
2.2 ALLER + ET + V	Va dans la cuisine et aide-les à mettre la table.					×
2.3 Unrealized motion	Elle va pour sortir de l'auto, puis elle change d'idée.	×	×			
2.4 Motion followed by activity (À + establishment-NP)	Marie va à l'école/à l'église/au théâtre/au cinéma/chez le médecin/chez le coiffeur/à l'épicerie chaque semaine.	×	×	×		
2.5 Motion followed by activity (À resource-NP)	Nous allons aux fraises ce week-end.	×		×		
2.6 Motion for communication	Et je vais de ce pas au Prince pour lui dire (Molière, cited in GRF)	×	×			

			7	Discovered via:	ra na	ed .
Semantic use	Example	Dict	Dictionaries	ries	C	
		GRF	TLF	LEX	Corpus	peaker tuition
2.7 Motion followed by activity (Å + activity-NP)	Jean ne veut pas aller à la guerre. Aller en pèlerinage, en ambassade, en conquête.	×	×	×		
2.8 Progredience	Jean va déjeuner.	×	×			
2.9 ALLER + EN + V-ant: manner of movement	Jean est allé à l'école en courant.	9				×
3. Static spatial extension						
3.1 Extension to a point	Cette route va à Montréal.	×	×	×		
4. Abstract extent						
4.1 Range of amount	Les salaires des cadres vont de 100,000 à 200,000 dollars.				×	
4.2 Temporal extent	La période allant de 1939 à 1945		×			
4.3 Range of intensity	La folie de celui-ci () va parfois jusqu'à vouloir être battu (Molière, cited in GRF)	×	×	×		

		-	Disc	over	Discovered via:	::
Semantic use	Example	Dic	Dictionaries	ries	C	
		GRF	TLF	LEX	orpus	eaker tuition
4.4 ALLER + DANS + amount	L'arbre mesure dans les trois mètres.		×			
4.5 Link	Quel est le lien logique qui va de l'intelligence à la moralité ?				×	
4.6 Ordered Series	Cette suite logique va des plus simples des machines aux plus sophistiquées.	V			×	
4.7 Static abstract orientation	Il s'est vite rendu compte que dans cette entente, les faveurs allaient dans un sens seulement.					×
4.8 Orientation of thought	Nos pensées vont aux habitants de ce village inondé.				×	
5. Change of state						
5.1 Change from state 1 to state 2	La mélodie va d'un ton à l'autre avec une rapidité surprenante.		×			
5.2 Tendency of change	Le gouvernement dit vouloir éviter une nouvelle crise, mais c'est bien vers là que nous allons.					
5.3 Tendency of magnitude change	Le prix du carburant allait en croissant.	×	×	×		

			Disc	Discovered via:	d via	••
Semantic use	Example	Dic	Dictionaries		C	Sı
		GRF	TLF	LEX	orpus	oeaker tuition
5.4 Extent of magnitude change	Les enchères sont allées jusqu'à 50 dollars avant que la chaise soit vendue.					×
6. Possession						
6.1 General transfer of possession	Les fonds de secours sont allés à ceux qui en avaient le plus grand besoin.			×		
6.2 Inheritance	L'héritage ira au fils ainé.		. ×			
6.3 Awarding/attribution	Le grand prix est allé à un film indépendant cette année.				×	
6.4 Sale	Les bijoux iront à la personne qui fait l'offre la plus élevée.					×
7. Resource/contribution						
NONE	NONE					

			Disc	Discovered via:	via:
Semantic use	Example	Dic	Dictionaries		
		GRF	TLF	LEX	orpus
8. Ceasing/ending					
NONE	NONE				
9. Temporal uses					
9.1 Passing of time	L'été va vite.	×	×		
9.2 Future	Jean va écrire un livre.	×	×	×	
10. Evaluation					
10.1 Evaluation of event/progress/development	L'examen/la fête/la construction du pont va bien.	×	×	×	
10.2 Evaluation of a person's state	Jean va bien.	×	×	×	
10.3 Evaluation of inanimate entity	L'économie/ce couteau va bien.				

			Dis	cover	Discovered via:	
Semantic use	Example	Dic	Dictionaries	ries	C	
		GRF	TLF	LEX	orpus	eaker tuition
10.4 Acceptability to SC	Je peux te/vous rencontrer à 10h demain. Est-ce que ça te/vous va? – Oui, ça me va.	×	×	×		
11. Appropriateness/ belonging						
11.1 Belonging in a location	Ce couteau-là va dans le tiroir à gauche.					×
11.2 Artifact made for specific place	Cette assiette va au four.	×	×			
11.3 Co-occurrence	Quels adjectifs vont avec le mot « peur » ?				×	
11.4 Harmonious accompaniment (subject = concrete)	Ce pantalon va avec cette chemise. Cette chemise va bien à Marie.	×	×	×		
11.5 Harmonious accompaniment (subject = abstract)	Ces deux traits de personnalité ne vont pas (bien) ensemble. L'indignation lui va bien. (GRF)	×	×			
12. Action						
12.1 Manner/extent of action	Jean ne va pas assez vite. Il ira loin dans la vie.	×	×	×		

			Disc	Discovered via:	d via	
Semantic use	Example	Dicti	Dictionaries		C	
		GRF	TLF	LEX	orpus	peaker tuition
12.2 Completeness of action	Jean était résolu à aller au fond de ce mystère.					×
12.3 Extent of price offer	Je vous donne 500 dollars pour ça, mais je ne peux pas aller plus loin que ça.					×
12.4 Contribution of abstract element (Y ALLER DE NP)	Il y est allé de sa chanson, (et tout le monde s'est mis à danser).	×	×	×		
12.5 Contribution of money (YALLER DE NP)	J'ai dû y aller de toutes mes économies (pour acheter cette maison).	×		×		
12.6 Encouragement/Exhortation to act	Vas-y, Jean, t'es capable!	×	×			
12.7 Beginning of action	Vas-y, c'est ton tour maintenant.				×	
13. Iconic specification of GO-action						
13.1 Content of text	L'histoire va comme suit : il était une fois une princesse qui					×

			Disc	Discovered via:	ed vi	::
Semantic use	Example	Dict	Dictionaries	ries	C	Si
		GRF	TLF	LEX	Corpus	peaker tuition
14. Non-occurrence						
NONE	NONE					
15. ALLER + VERB: negative evaluation of action	ıtion of action					
15.1 ALLER + INF	Jean est allé se mettre dans une situation difficile/défavorable. N'allez pas imaginer que j'ai l'intention de vous aider !	×	×	×		
15.2 Insult	Va te faire foutre!	×	×			

APPENDIX E

SEMANTIC USES OF COME AND VENIR

Use type	COME	VENIR
1. motion	John is coming to Montreal.	Jean vient à Montréal.
	A package came for you today.	*Un colis est venu pour toi aujourd'hui.
	John came to me about his problems.	*Jean est venu à moi à propos de ses problèmes.
2. motion + action	Come see what I've found.	Viens voir ce que j'ai trouvé.
	*John will come to the restaurant eat breakfast with us.	Jean viendra au restaurant déjeuner avec nous.
	*John comes eat(s) breakfast with us.	Jean vient déjeuner avec nous.
	John came ice-skating with us.	*Jean est venu en patinant avec nous:

Use type	COME	VENIR
3. static spatial extension	This road comes from Montreal.	Cette route vient de Montréal.
	The path comes through the valley.	??Le sentier vient à travers la vallée.
	*John comes me to the shoulder.	Jean me vient à l'épaule.
	Jean comes (up) to my shoulder.	*Jean vient à mon épaule.
4. actualization	When the time comes to leave, I am always sad.	Quand vient le temps de partir, je suis toujours triste
	When the baby came, the family's routine changed.	*Quand le bébé est venu, la routine de la famille a changé.
	How is your project coming?	*Comment ton projet vient- il?
	Computers have come a long way since the 1970s.	*Les ordinateurs sont venus très loin depuis les années 70.
5. individual experience	Good fortune will come to you if you are patient.	La bonne fortune viendra à toi si tu es patient.
	*A big headache came to him.	Il lui est venu un gros mal de tête.
	This idea came to me yesterday.	Cette idée m'est venue hier

Use type	COME	VENIR
6. state-entering	John came to the conclusion that Mary had been lying.	Jean en est venu à la conclusion que Marie lui avait menti. ?Jean est venu à la conclusion que Marie lui avait menti.
	Your bill comes to 25 dollars.	*Votre facture (en) vient à 100 dollars.
	After walking for hours, the weary hikers came to a bridge.	*Après des heures de marche, les randonneurs épuisés (en) sont venus à un pont.
	If by chance John came to lose his job	Si (par hasard) Jean venait à perdre son emploi
7. COME + ADJ	Her dreams came true.	*Ses rêves sont venus vrais.
	The figures in the painting came alive.	*Les figures dans le tableau sont venues vivantes.
	The shoes came untied.	*Les chaussures sont venues détachées.
8. order	P comes before Q in the alphabet.	P vient avant Q dans l'alphabet.
	Freedom comes well before material comfort in my priorities.	La liberté vient bien avant le confort matériel dans mes priorités.
9. origin	This word comes from Greek.	Ce mot vient du grec.
	This wine comes from Italy.	Ce vin vient d'Italie.
	This idea comes from Plato.	Cette idée vient de Platon.

Use type	COME	VENIR
9. origin	His sadness comes from the circumstances.	Sa tristesse vient des circonstances.
10. possession	Several thousand dollars came to him from his uncle.	J'ai dû vendre un domaine qui me vient de ma tante.
	The spirit of true humility comes to those who seek it diligently.	La vraie humilité vient à ceux qui la cherchent activement.
	Writing/painting/humor comes naturally to her.	L'écriture/La peinture/L'humour lui vient naturellement.
	You will get all the credit that is coming to you.	*Tu auras tout le crédit qui te vient.
11. existence with a property	Dogs come in many shapes and sizes.	*Les chats viennent en diverses formes et tailles.
	This sofa comes in four different colors.	*Ce sofa vient en quatre couleurs différentes.
	This computer comes with a monitor.	*Cet ordinateur vient avec un moniteur.
12. recent past	*John comes from eating.	Jean vient de manger.
13. COME/VENIR + VERB: impact	*Don't come (and) tell me that John is ill!	Ne viens pas me dire que Jean est malade!
on the SC	*Nothing will ever come (and) contradict the results of this experiment.	Rien ne viendra jamais contredire les résultats de cette expérience.

APPENDIX F

SEMANTIC USES OF GO AND ALLER

Use type	GO	ALLER
1. motion	John is going to Paris this summer.	Jean va à Paris cet été
	Are you going to the concert?	Vas-tu au concert? — *Oui, je vais.
	- Yes, I'm going.	– Oui j'y vais.
	Go! The light is green!	*Va! Le feu est vert! Vas-y! Le feu est vert!
	It is late. I really must go.	Il est tard. *Il faudrait vraiment que j'aille./ Il faudrait vraiment que j'y aille.
2. motion + action	John went to buy some bread.	*Jean est allé pour acheter du pain.
	John went and helped them set the table.	*Jean est allé et les a aidés à mettre la table.
	If you need advice, you should go to John.	*Si tu as besoin de conseils, tu devrais aller à Jean.
	John should go buy some bread.	Jean devrait aller acheter du pain.

Use type	GO .	ALLER
2. motion + action	John went fishing/ice-skating.	*Jean est allé en pêchant/patinant.
3. static spatial extension	This road goes (from Toronto) to Montreal.	Cette route va (de Toronto) à Montréal.
	*This road goes from Montreal.	*Cette route va de Montréal.
	The road goes through the middle of the forest.	??La route va à travers la forêt.
	That door goes to the cellar/balcony.	*Cette porte va au/sur le balcon. *Cette porte va au sous-sol.
4. abstract extent	The salaries of executives go from 100,000 to 200,000 dollars.	Les salaires des cadres vont de 100,000 à 200,000 dollars.
	Symptoms (can) go from very mild fever to severe pain.	Les symptômes peuvent aller/vont d'une très légère fièvre à des douleurs intenses.
	The period going from 1939 to 1945	La période allant de 1939 à 1945
	*The period going from 1939	*La période allant de 1939
	*The period going to 1945	*La période allant à 1945

Use type	GO	ALLER
5. change of state	The sky was going from blue to gray as the clouds appeared.	Le ciel allait du bleu au gris à mesure que les nuages arrivaient.
	John went into a rage/a depression/ecstasy.	Jean est *allé dans une rage/une dépression/en extase.
	*The price of fuel went increasing/growing.	Le prix du carburant allait en croissant.
	John went crazy/Republican/red in the face.	*Jean est allé fou/républicain/rouge.
	The plane went invisible on the radar screen.	*L'avion est allé invisible à l'écran radar.
6. possession	The relief funds went to the people who needed it the most.	Les fonds de secours sont allés à ceux qui en avaient le plus grand besoin.
	The inheritance went to the eldest son.	L'héritage est allé au fils ainé.
	A house like this would go for 250,000 dollars.	*Une maison comme celle-ci irait pour 250,000 dollars.
7. resource/contribution	Most people don't know about all the toxic substances that go into cleaning products.	*La plupart des gens ignore les substances toxiques qui vont aux/dans les produits ménagers.
	A considerable effort went into this project.	*Un effort considérable est allé à/dans/sur ce projet.
	A bit of this cleaner goes a long way.	*Une petite quantité de ce produit va loin.

Use type	GO	ALLER
8. ceasing/ending	If John goes, who will take his place in the company?	* Si Jean va, qui prendra sa place au sein de l'entreprise ?
	These antiquated policies have to go.	*Ces politiques désuètes doivent aller.
	The light bulb in the bathroom is starting to go.	*L'ampoule dans la salle de bain commence à aller.
	My hearing is starting to go.	*Mon ouïe commence à aller
9. temporal uses	Summer is going fast.	L'été va vite.
	*John is going write a book.	Jean va écrire un livre
	John is going to write a book.	*Jean va à écrire un livre.
10. evaluation	The day/exam/dinner party/construction of the bridge went well/is going well.	La journée/L'examen/la fête/la construction du pont va bien.
	*John is going well.	Jean va bien.
	*The economy is going well.	L'économie va bien.
	*This knife goes badly.	Ce couteau va mal.
	-At 10 o'clock? - *Yes, that goes (for) me.	-À 10h? – Oui, ça me va.

Use type	GO	ALLER
11. appropriateness/ belonging	That knife goes in the left drawer.	Ce couteau-là va dans le tiroir à gauche.
	This dish goes in the oven.	Cette assiette va au four.
	These pants go (well) with that shirt.	Ce pantalon va (bien) avec cette chemise.
	*Indignation goes well on/with her.	L'indignation lui va bien.
	Do you think all these clothes will go into your suitcase?	*Penses-tu que tous ces vêtements vont aller dans la valise?
12. action	John is not going fast enough.	Jean ne va pas assez vite.
	*He went of/from his song, and everyone began to dance.	Il y est allé de sa chanson, e tout le monde s'est mis à danser.
	Go John, you can do it!	*Va Jean! T'es capable! Vas-y Jean! T'es capable!
	The preparations have been completed and we're ready to go.	Les préparatifs sont terminés et nous sommes prêts à *(y) aller.
13. iconic specification of GO-action	John went (like this) [gesture], but I couldn't tell what he was pointing at.	*Jean est allé comme ça avec sa main [gesture], mais je ne voyais pas ce qu'il pointait.
	When the balloon popped, it went "bang!".	*Le ballon est allé « bang !»
	Remember that song? It goes (like this)	*La chanson va (comme ça/ceci)

Use type	GO	ALLER
13. iconic specification of GO-action	I told her the news, and then she went: "No way!"	*Je lui raconte la nouvelle, puis elle va : « c'est impossible, ça se peut pas! ».
14. non- occurrence	John went for one week without eating.	*Jean est allé deux semaines sans manger.
	The dishes went unwashed/without being washed for two days.	*L'auto est allée deux semaines sans être lavée.
	The letter went unread/unanswered for months.	*Toutes ses lettres sont allées sans être lue/sans réponse pendant des mois.
15. GO/ALLER + VERB: negative evaluation of action	*John has gone get/got/put himself into a ridiculous situation.	Jean est allé se mettre dans une situation ridicule.
	I just knew John would go get/put himself into a ridiculous situation.	Je savais que Jean allait se mettre dans une situation difficile.
	John has gone and got/put himself in a ridiculous situation.	*Jean est allé et s'est mis dans une situation ridicule.
	Don't go (and) imagine that I intend to help you.	N'allez pas imaginer que j'ai l'intention de vous aider *N'allez pas et n'imaginez pas que j'ai l'intention de vous aider.
	Don't go imagining that I intend to help you.	*N'allez pas (en) imaginant que j'ai l'intention de vous aider.

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