

Université de Montréal

Aspects de la syntaxe du créole martiniquais

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Résumé

Cette thèse est consacrée à l'étude de trois faits de langue du créole martiniquais (CM) et aborde ainsi certains aspects de l'interface syntaxe-sémantique/pragmatique.

Le premier fait de langue concerne la périphérie gauche nominale du CM pour laquelle nous proposons de scinder la projection fonctionnelle DP en deux projections, Def(initeness)P et Specif(icity)P. La première de ces couches encode la définitude, tandis que la seconde marque la spécificité. Cette analyse permet de rendre compte de deux des propriétés des propositions relatives restrictives du CM. Il s'agit en l'espèce du fait qu'elles comportent deux occurrences du déterminant défini et que la présence ou absence de sa seconde occurrence résulte en une lecture spécifique ou non spécifique. Bien qu'ils ne puissent comporter qu'une seule occurrence du déterminant défini (motivée par une haplologie), les DP simples sont soumis à la même analyse. On peut ainsi rendre compte de leurs différentes interprétations.

Le second fait de langue concerne les interrogatives partielles définies (IPD). Ces constructions se distinguent des interrogatives canoniques par les conditions de leur légitimation. Elles nécessitent l'inclusion dans le *common ground* d'une proposition existentielle qui partage avec l'IPD sa restriction et sa portée nucléaire. De ce fait, on ne peut ni commencer une conversation par une IPD ni y apporter une réponse du type *rien*. Les IPD se caractérisent donc par une présupposition forte que nous attribuons à la présence en position finale d'un déterminant clausal. Ce dernier est engendré dans la périphérie gauche de la phrase et prend pour restriction une proposition. En raison de son homophonie avec le déterminant défini nominal, nous suggérons qu'il est la réalisation d'un trait acatégoriel [+DEF]. Autrement dit, nous apportons ici de nouvelles preuves au point de vue selon lequel la définitude n'est pas une propriété exclusivement nominale.

Le troisième fait de langue concerne l'interaction des verbes modaux du CM avec le temps. Qu'ils soient épistémiques ou radicaux, les modaux du CM sont des verbes à montée. Quelle que soit leur lecture, ils participent donc à des structures biclausales et sont sous la portée du temps. On observe cependant que l'interprétation temporelle des épistémiques est soumise à des contraintes qui ne s'appliquent pas aux radicaux. Ce

contraste trouve son origine dans une différence d'orientation. Les radicaux sont orientés vers le sujet, alors que les épistémiques sont orientés vers le locuteur (ou le Siège de la Connaissance). Cela se traduit par une dépendance interprétative des épistémiques vis-à-vis de la couche fonctionnelle abstraite Sen(tience)P située dans la périphérie gauche de la phrase. Nous proposons un trait [sen] pour traduire cette dépendance. Les conséquences interlangagières de cette analyse sont évaluées.

Les trois faits de langue à l'étude confirment l'importance capitale de la périphérie gauche nominale et phrastique dans l'interface syntaxe-sémantique/pragmatique.

Mots-clés : créole martiniquais, définitude, spécificité, propositions relatives restrictives, questions non canoniques, common ground, déterminant clausal, interaction temps-modalité, périphérie gauche, interface syntaxe-pragmatique

Abstract

This dissertation investigates three linguistic phenomena in Martinican Creole (MC) and addresses some aspects of the syntax-semantics/pragmatics interface.

The first phenomenon concerns the nominal left periphery. I argue that the MC DP layer should be split into two distinct functional projections, Def(initeness)P and Specif(icity)P. The former projection encodes definiteness, while the latter marks specificity. This analysis accounts for two properties of MC restrictive relative clauses. First, they manifest determiner doubling. Second, the presence/absence of the second occurrence of the definite determiner is correlated with a specific/nonspecific reading. The proposed analysis can be applied to simplex DPs even though, owing to a haplology, they cannot feature more than one occurrence of the determiner. This allows for a straightforward account of their interpretational properties.

The second phenomenon concerns definite wh-questions (DWQs). These non-canonical wh-questions are characterized by their peculiar licensing conditions. They can only be uttered if the common ground includes an existential proposition which shares its restriction and nuclear scope with the DWQ. As a result, they cannot be uttered out of the blue and do not tolerate *nothing*-type answers. In other words, DWQs are associated with a hard presupposition triggered by the clausal determiner which appears in the final position of DWQs. This determiner is base-generated in the left periphery of the clause and takes a proposition as its restriction. Because of its homophony with the nominal definite determiner, we suggest that it spells out an acategorial [+DEF] feature. This can be adduced as further evidence for the view that definiteness is not restricted to the nominal domain.

The third phenomenon under study concerns the interaction of MC modal verbs with tense. Whether they receive a root or an epistemic reading, MC modals are raising predicates. Both epistemic and root modals are inserted in biclausal structures and are under the scope of tense. Nevertheless, the temporal interpretation of epistemic modals is subject to constraints which do not apply to their root counterparts. This contrast correlates with a difference in orientation. Root modals are subject-oriented, while epistemic modals are oriented toward the speaker (or the Seat of Knowledge). This results in their

interpretational dependence on the abstract Sen(tience)P functional layer. To reflect this dependency, I argue for a [sen] feature. The cross-linguistic implications of this proposal are evaluated.

The three phenomena under study confirm that the nominal and clausal left periphery plays a crucial role in the syntax-semantics/pragmatics interface.

Keywords: Martinican Creole, definiteness, specificity, restrictive relative clauses, non-canonical questions, common ground, common ground, tense-modality interactions, left periphery, syntax-pragmatics interface

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Liste des sigles et abréviations

1	1 ^{re} personne
2	2 ^e personne
3	3 ^e personne
CD	clausal determiner
CL	noun class
CM	créole martiniquais
COMP	complémenteur
COP	copula
CP	complementizer phrase
DEF	défini
DET	determiner
DP	determiner phrase
DWQ	definite wh-question
EPP	Extended Projection Principle
HC	Haitian Creole
IP	inflectional phrase
IMPF	imperfective
INDEF	indéfini
INF	infinitif
IPD	interrogative partielle définie
IPI	interrogative partielle indéfinie
IWQ	indefinite wh-question
JPCL	Journal of Pidgin and Creole Languages
LF	logical form
MC	Martinican Creole
NEG	négation
NP	noun phrase
NPI	negative polarity item

PL	pluriel
PPI	positive polarity item
PST	past
PROSP	prospectif
PROX	proximative
Q	question particle
RC	relative clause
RRC	restrictive relative clause
SG	singulier
SoT	Sequence of Tense
UG	Universal Grammar
UT	utterance time
VP	verb phrase
WH	wh-morpheme

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Chapitre 1. Introduction générale

Les objectifs de la présente thèse sont à la fois d'ordre empirique et théorique. Sur le plan empirique, il s'agit de contribuer à la documentation du créole martiniquais (ci-après CM). Sur le plan théorique, notre thèse s'inscrit dans le cadre des travaux portant sur l'interface syntaxe-sémantique/pragmatique.

L'introduction générale s'organise de la manière suivante. La section 1.1 introduit le cadre théorique retenu. Puis, la section 1.2 démontre l'intérêt empirique et théorique de l'analyse des trois faits de langue à l'étude. Enfin, la section 1.3 présente l'organisation de la présente thèse.

1.1 Cadre théorique

Notre étude de la syntaxe du CM adopte les outils et postulats de la grammaire générative chomskyenne. Au sein de celle-ci, nous recrutons deux courants théoriques en particulier : l'approche cartographique et le minimalisme. Ces deux courants sont des extensions du modèle Principes et Paramètres (Chomsky 1981) et ils ont en commun la place centrale qu'ils accordent aux têtes fonctionnelles. En dépit des tensions qu'il peut y avoir entre eux, nous les considérons complémentaires (Shlonsky 2010)¹. Ainsi, bien que notre thèse s'appuie principalement sur une approche cartographique, nous mobilisons, lorsque c'est nécessaire, une technologie empruntée au minimalisme.

1.1.1 L'approche cartographique

L'approche cartographique trouve son origine dans Pollock (1989). Sur la base d'arguments distributionnels, l'auteur démontre qu'il est nécessaire de scinder la tête Infl en deux têtes fonctionnelles : Agr et T. Cette démarche trouve son point culminant dans Cinque (1999) où l'on assiste à un foisonnement de têtes fonctionnelles dans le domaine

¹ Voir également Ramchand et Svenonius (2014) et Shlonsky et Bocci(2019) pour une discussion des tensions entre cartographie et minimalisme.

flexionnel. L'étude des adverbes révèle en effet qu'ils sont organisés selon un ordre rigide à travers les langues du monde. Pour rendre compte de ce fait, Cinque postule une hiérarchie universelle de têtes fonctionnelles dont les spécificateurs hébergent lesdits adverbes. Nous en offrons l'illustration en (1).

- (1) [frankly Mood_{speech act} [fortunately Mood_{evaluative} [allegedly Mood_{evidential}
 [probably Mod_{epistemic} [once T(Past) [then T(Future) [perhaps Mood_{irrealis}
 [necessarily Mod_{necessity} [possibly Mod_{possibility} [usually Asp_{habitual} [again
 Asp_{repetitive(I)} [often Asp_{frequentative(I)} [intentionally Mood_{volitional} [quickly
 Asp_{celerative(I)} [already T(Anterior) [no longer Asp_{terminative} [still Asp_{continuative}
 [always Asp_{perfect(?)} [just Asp_{retrospective} [soon Asp_{proximative} [briefly Asp_{durative}
 [characteristically(?) Asp_{generic/progressive} [almost Asp_{prospective} [completely
 Asp_{completive(I)} [tutto Asp_{PICompletive} [well Voice [fast/early Asp_{celerative(II)} [often
 Asp_{frequentative(II)} [completely Asp_{Completive(II)}

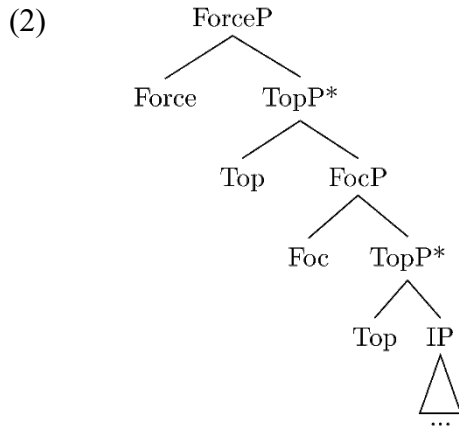
L'hypothèse d'une hiérarchie universelle est renforcée par le fait que dans certaines langues, ces têtes fonctionnelles sont réalisées sous la forme d'affixes organisés selon un ordre inverse à celui des adverbes exprimant les mêmes sens ou remplissant les mêmes fonctions, ce que l'on peut expliquer par le Principe du Miroir (Baker 1985). On dispose donc de fortes raisons empiriques pour justifier une structure riche en têtes fonctionnelles.

Cette conclusion ne se limite d'ailleurs pas uniquement au domaine flexionnel. Rizzi (1997) montre que la périphérie gauche de la phrase doit elle aussi être éclatée en plusieurs projections. On passe donc d'une projection fonctionnelle unique (CP) à la structure illustrée en (2).^{2,3} Au sein de celle-ci, on notera en particulier les projections Top(ic)P et Foc(us)P en raison de leur lien avec le discours et la structure informationnelle. Dans le cas où un constituant est topicalisé (et donc placé en Spec,TopP), on a alors une phrase structurée selon le modèle topique-commentaire. Il s'agit alors de fournir une information nouvelle (le commentaire) sur le constituant topicalisé. Dans le cas où un

² L'astérisque y indique que les projections fonctionnelles Top(ic)P sont récursives.

³ On pourrait enrichir cette structure des raffinements ultérieurs (v. Rizzi 2013 et les références qui y sont citées), mais l'on peut saisir le propos à partir de (2).

constituant occupe la position Spec,FocP, l'information véhiculée par la phrase est alors organisée selon le schème focus-présupposition. Le complément de Foc désigne alors une information déjà connue (la présupposition) tandis que le focus correspond à de l'information nouvelle ou inattendue (Rizzi 2013:443-445). L'analyse cartographique de la périphérie gauche nous permet donc d'appréhender en quoi il est juste de dire que la cartographie a pour effet de « syntacticiser » la pragmatique.



Cette étude de la périphérie gauche nous montre également que les apports de la cartographie ne sont pas limités à un seul domaine. En effet, plusieurs études ont montré la pertinence d'étudier de manière plus fine la structure interne d'autres projections – et d'y étendre le schéma cartographique – notamment celle du groupe prépositionnel (PP)⁴ et du groupe nominal (DP).

En ce qui concerne le DP, de nombreux chercheurs ont soulevé les parallèles qu'il manifeste avec la phrase, le IP pour certains, le CP pour d'autres : voir notamment Fukui et Speas (1986), Szabolcsi (1989, 1984), Scott (2002), Giusti (2006), Svenonius (2008) et Nicolis (2008)⁵. Un des développements récents concerne spécifiquement la périphérie

⁴ Voir entre autres la collection d'articles colligés dans Cinque et Rizzi (2010).

⁵ Parmi ces parallélismes, notons la structure argumentale des verbes dans la proposition et les nominaux déverbaux (Chomsky 1970) ; l'ordre des mots dans le DP et le CP/IP (ex. VSO/NSO, Koopman 2005) ; le parallélisme entre la position des adverbes dans la phrase et celle des adjectifs dans les nominaux événementiels et le déplacement d'une tête lexicale vers une tête fonctionnelle (Cinque 1990, 1992; Valois 1991; Longobardi 1994) ; et, enfin, le fait que la position de Spec,DP peut, tout comme la position de Spec,CP, servir de point de chute ou encore de porte de sortie (« escape hatch ») pour le déplacement hors

gauche du DP. En effet, par analogie avec la périphérie gauche de la phrase, nombre de chercheurs ont postulé la présence d'une périphérie gauche dans le DP. Ainsi, des positions de Focus et de Topique ont été identifiées dans le DP (entre autres, Benincá 2001 pour l'italien ; Aboh 2004 pour le gungbe ; Ntelitheos 2002 pour le grec moderne ; Corver and van Koppen 2006 pour le néerlandais). Certains traits inhérents au DP ont aussi fait l'objet d'une analyse cartographique : ainsi, la définitude a été analysée comme une tête fonctionnelle Def, équivalant à la tête Fin de la périphérie gauche de la phrase (Haegeman 2000, 2004; Ihsane and Puskás 2001). D'autres têtes fonctionnelles ont aussi été postulées dans le DP, par exemple Num (qui contient les traits de nombre, cf. Ritter 1991) et Dem (contenant les traits démonstratifs, cf. Giusti 1992; Bernstein 1993). On peut ainsi illustrer schématiquement la structure interne du syntagme nominal, avec sa couche lexicale (NP) et les projections fonctionnelles qui la dominant, comme suit⁶ :

(3) [DP [TopP [FocP [DemP [NumP [NP]]]]]]

L'image qui émerge des travaux en cartographie est celle d'une structure riche et apparemment fort complexe. Cette impression de complexité est cependant contrebalancée par la simplicité des projections fonctionnelles. Comme l'indique Rizzi (2013), elles sont uniformes, ne possèdent chacune qu'un seul spécificateur et un seul complément.

On peut toutefois s'interroger sur le type de structures que la cartographie entend révéler, notamment en ce qui a trait à la nature et au contenu des catégories fonctionnelles qu'elle met au jour. Comme l'indiquent Rizzi et Cinque (2016), certains auteurs travaillant dans le cadre de la cartographie postulent qu'il y aurait une association biunivoque entre traits et catégories fonctionnelles. Une telle conjecture soulève la question de la nature des traits postulés. Comme le fait ressortir Shlonsky (2010), certains de ces traits ont un

du DP (entre autres, Torrego 1986; Tellier 1991, 1988; Sportiche 1989; Authier 1991). Pour des vues d'ensemble, voir entre autres Bernstein (2001), Bruening (2009), Laenzlinger (2017) et Larson (2020).

⁶ Au chapitre 2, je propose de substituer l'étiquette SpecifP à TopP.

caractère sémantique ou pragmatique.⁷ On aboutit donc à une « syntacticisation » de la sémantique et de la pragmatique, ce qui soulève bien entendu des questions quant à l'interface syntaxe-sémantique/pragmatique. Car s'il semble effectivement que certaines notions sémantiques/pragmatiques sont encodées dans la syntaxe, il reste à déterminer de manière plus précise lesquelles le sont, lesquelles ne le sont pas et pourquoi.

On peut aussi s'interroger sur le caractère universel des catégories fonctionnelles proposées : se retrouvent-elles dans toutes les langues du monde? Si l'on répond à cette question par l'affirmative, on peut alors opposer deux points de vue. Le premier consiste à postuler que toutes ces catégories seraient présentes dans toutes les langues du monde (Cinque et Rizzi 2008). Le second point de vue, plus modeste, est d'envisager que ces catégories forment un inventaire au sein duquel les différentes langues puisent uniquement les catégories dont elles « ont besoin » (Chomsky 2000).

En réalité, le caractère universel de ces catégories est loin d'aller de soi. Wiltschko (2014) remet ainsi en question leur contenu substantif. Selon la *Universal Spine Hypothesis* qu'elle formule, on aurait bien une hiérarchie universelle de têtes fonctionnelles, mais celles-ci auraient en commun leur fonction, pas leur contenu substantif. Pour illustrer le propos, Wiltschko affirme que l'on peut trouver dans toutes les langues des catégories responsables d'encoder l'ancrage au centre déictique. Mais, dans certaines langues, cet ancrage se fait par le temps, alors que dans d'autres, il se fait par la localisation.⁸ Ainsi, il faudrait relativiser le caractère universel des catégories révélées par la cartographie.

En fait, ce qui est en jeu, c'est le pouvoir explicatif de l'approche cartographique. Larson (2021) pose cette même question, lorsqu'il s'interroge sur l'origine des ordres rigides que décrivent les travaux cartographiques. Postuler que ces ordres sont fournis tels quels par la Grammaire Universelle n'est pas entièrement satisfaisant. S'agissant des adjectifs, Larson tente donc d'identifier un algorithme qui pourrait en expliquer l'ordre. Une discussion détaillée de sa proposition dépasse le cadre de cette thèse, mais l'on pourrait se demander si elle peut être répliquée dans d'autres domaines. En tout état de cause, nous

⁷ C'est justement l'un des points de tension entre l'approche cartographique et le minimalisme. Tandis que la première postule des traits qui auraient une valeur sémantico-pragmatique, le second est centré sur les traits fonctionnels.

⁸ Voir Wiltschko (2014:125-130).

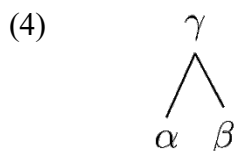
garderons à l'esprit que l'une des limites de la cartographie concerne l'origine même des séquences fonctionnelles qu'elle met en évidence.

Comme on peut le percevoir, il vaut mieux traiter l'approche cartographique comme un programme de recherche (Shlonsky 2010; Rizzi et Cinque 2016). Cela dit, en dépit des questions qu'elle laisse en suspens, elle nous fournit les moyens heuristiques pour mettre au jour et analyser de nouveaux faits.

1.1.2 Le minimalisme

Au même titre que la cartographie, le minimalisme doit être vu comme un programme de recherche, plutôt qu'une théorie à proprement parler. Il trouve son origine dans Chomsky (1993). Compte tenu du primat qu'il accorde aux considérations d'économie, le minimalisme sera mobilisé ici chaque fois que cela s'avérera nécessaire. Cela dit, même s'il ne joue qu'un rôle secondaire dans la présente thèse, il n'en demeure pas moins nécessaire de présenter les outils que nous lui empruntons.

En premier lieu, nous retenons du minimalisme son approche dérivationnelle. Nous considérons ainsi que la structure est construite de bas en haut par le biais de l'opération Merge (fusion) (Adger 2003: chap. 3). Cette opération consiste à fusionner deux objets syntaxiques pour en former un nouveau. Ainsi, dans l'arbre en (4), Merge fusionne les objets syntaxiques α et β pour former l'objet γ .

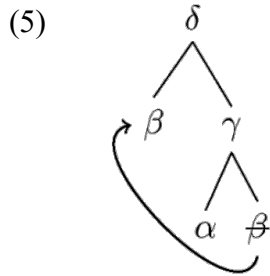


Nous avons là une illustration basique de Merge. On peut cependant distinguer External Merge et Internal Merge. Dans le cas d'External Merge,⁹ l'un des objets syntaxiques est sélectionné dans la numération,¹⁰ c'est-à-dire l'ensemble des items lexicaux qui participent

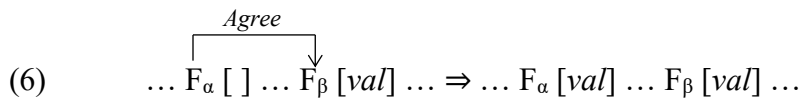
⁹ Nous utiliserons alternativement le terme First-merge, en particulier lorsque l'objet syntaxique est la cible subséquente d'Internal Merge.

¹⁰ Cette description est schématique, car il peut aussi s'agir d'un objet syntaxique construit dans un autre espace de travail.

à la dérivation. Internal Merge, en revanche, consiste à copier un objet syntaxique contenu dans δ et à le fusionner à δ ; c'est donc l'équivalent du déplacement. Pour illustrer, penchons-nous sur (5). Comme on peut le voir, dans un premier temps, Merge s'applique à α et β pour former γ . Puis, a lieu l'Internal Merge de β à γ pour former l'objet δ .



Outre Merge, nous ferons également appel à l'opération Agree, qui met en jeu une sonde et une cible. Nous adopterons la version qu'en proposent Pesetsky et Torrego (2007). Ainsi, soit un trait F associé à une tête α et un objet syntaxique β , tels que α c -commande β . Postulons par ailleurs que le trait F associé à α est non valué alors que celui qui est associé à β l'est. Afin de valuer le trait F porté par α , une relation sonde-cible sera établie entre α et β ¹¹. Ceci est illustré ci-dessous en (6). Au terme de cette opération, le trait F de α est valué et la dérivation ne rencontre pas de problème.



C'est cette conception de Agree qui sera mobilisée au chapitre 4.

Nous concluons ici notre bref exposé des outils minimalistes auxquels nous recourons dans la présente thèse.

1.2 Les trois faits de langue à l'étude

Nous présentons dans cette section les trois faits de langue du CM qui ont retenu notre attention : (i) les syntagmes déterminatifs (ci-après DP) relativisés, (ii) les interrogatives

¹¹ Nous faisons ici abstraction des conditions de localité qui s'appliquent à Agree.

partielles définies et (iii) l'interaction temps-modalité.

1.2.1 Définitude et spécificité en CM

Au chapitre 2, notre étude des propositions relatives restrictives du CM fait ressortir un fait que les travaux précédents (Bernabé 1983, 2003; Damoiseau 1999, 2012a) n'avaient pas relevé. Selon ces études, ces constructions se caractériseraient par deux occurrences du déterminant défini, la première suivant immédiatement la tête de la relative et la deuxième occupant la position finale de ladite relative. Cette description vaut pour (7a), mais pas pour (7b). Alors que ces études affirment que la seconde occurrence du déterminant est obligatoire, nous démontrons qu'elle est optionnelle et que sa présence (ou absence) a des effets sur l'interprétation sémantique du DP.

- (7) a. Moun **lan** ki palé a ké ni sa pou di
 personne DEF COMP parler DEF WOLL avoir ça pour dire
 'La personne (susmentionnée) qui a parlé le regrettera.'
- b. Moun **lan** ki palé ké ni sa pou di
 personne DEF COMP parler WOLL avoir ça pour dire
 'La personne qui aura parlé le regrettera.'

Comme l'indique cette paire minimale, en l'absence de la seconde occurrence du déterminant, seule une lecture *de dicto* est possible. En sa présence, le DP reçoit préférentiellement une lecture *de re*.¹² Pour rendre compte de ces faits, nous proposons une analyse selon laquelle la périphérie gauche nominale du CM serait plus riche que ne le suggèrent d'autres études (Gadelii 2007; Déprez 2007; Zribi-Hertz and Jean-Louis 2014).

D'un point de vue théorique, ces données nous amènent à aborder la question de la définitude. On sait en effet que cette notion fait encore débat, car il n'est pas aisé de la définir de manière adéquate. On trouve ainsi des théories de la définitude qui sont articulées autour de la notion de familiarité (Christophersen 1939). Selon ce point de vue, la

¹² Une lecture *de dicto* serait également possible, mais elle nous paraît moins probable.

caractéristique définitoire des DP définis est que leurs référents sont déjà connus des participants au discours. Les DP indéfinis sont donc, eux, caractérisés par le fait que leurs référents sont nouvellement introduits dans l'univers du discours.¹³ C'est l'intuition qui sous-tend la Condition de nouveauté-familiarité de Heim (1982). Selon d'autres théories, la définitude aurait plutôt rapport à la notion d'unicité (Frege 1892; Russell 1905; Hawkins 1978). Selon ce second point de vue, la propriété principale des DP définis est donc que leur référent doit être unique.

Comme le note Lyons (1999), aucune de ces deux théories ne peut à elle seule rendre compte de tous les emplois de DP définis. Schwarz (2009) suggère d'ailleurs que l'on ne devrait pas opposer ces deux approches. Une même langue pourrait posséder des marqueurs permettant de distinguer unicité et familiarité. Néanmoins, on peut se demander quels sont les liens qu'entretiennent ces deux conceptions de la définitude. Ainsi, Ihsane et Puskás (2001) développent une analyse selon laquelle la notion d'unicité serait commune à tous les DP définis. Au sein de l'ensemble des DP définis serait en fait inclus un sous-ensemble propre de DP définis dont le référent est à la fois unique et familier. Ihsane et Puskás proposent donc d'assimiler la définitude à l'unicité, tandis que la familiarité devrait, quant à elle, être associée à la notion de spécificité. Pour rendre compte de la relation d'inclusion qui existe entre ces deux notions, elles suggèrent d'éclater la couche DP en deux projections. La projection inférieure (DefP) encoderait ainsi la définitude prise au sens d'unicité, tandis que la projection supérieure (TopP) marquerait la spécificité prise au sens de familiarité. Cette deuxième projection ne serait alors activée que lorsque le DP a un référent familier. Compte tenu du lien de la familiarité avec le discours, l'encodage syntaxique de cette notion met à nouveau en évidence le fait que certaines notions pragmatiques sont inscrites dans la grammaire.

C'est cette proposition qui sous-tend l'analyse que nous faisons des DP relativisés du CM. Elle nous permet en effet de rendre compte de deux de leurs propriétés : (i) la double occurrence du déterminant défini (v. (7a)) et (ii) les effets sémantiques liés à la présence ou absence de sa seconde occurrence. Notre hypothèse est que la première

¹³ Au même titre que l'analyse des *donkey-sentences*, ce type de fait échappe aux théories sémantiques « statiques » et donnent donc toute leur légitimité aux théories dites « dynamiques » telles que la *File Change Semantics* (Heim 1982, 1983) ou la *Discourse Representation Theory* (Kamp 1981; Kamp et al. 2011).

occurrence (située immédiatement après la tête de la relative) encode la définitude et la seconde (située, elle, en position finale de la relative) la spécificité. On peut alors rendre compte de manière élégante des effets de son absence ou de sa présence.

L'étude des relatives restrictives du CM renforce donc l'hypothèse selon laquelle la pragmatique serait au moins en partie encodée dans la syntaxe. Elle confirme de manière plus spécifique le rôle joué par la périphérie gauche nominale dans le marquage des notions liées au discours. Elle fait en cela écho à la *Universal Spine Hypothesis* de Wiltschko (2014), qui réserve à la périphérie gauche cette fonction.¹⁴ Notons, en passant, que nous étendons cette analyse des DP relativisés du CM aux DP simples. Nous affirmons effectivement que ces derniers possèdent une structure tout aussi riche malgré le fait qu'en raison d'une haplogogie, ils ne peuvent comporter qu'une seule occurrence du déterminant.

1.2.2 Les interrogatives partielles définies

Au chapitre 3, nous nous penchons sur un type d'interrogatives partielles que nous qualifions de définies (ci-après IPD), car elles comportent un déterminant clausal en position finale. Nous en offrons une illustration en (8).

- (8) Ki moun Jan wè a?
 WH personne Jean voir CD
 'Qui Jean a-t-il vu (attendu que nous savons que Jean a vu quelqu'un)?'

Il n'existe, à notre connaissance, aucune étude qui se soit penchée sur ces constructions. Nous en proposons donc une étude exploratoire.

D'un point de vue pragmatique, nous jugeons les IPD particulièrement intéressantes. En effet, elles ne peuvent être prononcées que dans des conditions particulières. Contrairement aux interrogatives partielles régulières – que nous désignons par le terme d'interrogatives partielles indéfinies (IPI), les IPD ne peuvent être utilisées pour commencer une conversation. Leur légitimation dépend en effet du contenu du *common ground*, à savoir l'ensemble des propositions tenues pour vraies en commun par

¹⁴ Ce postulat vaut tant pour la périphérie gauche nominale que pour la périphérie gauche phrastique.

l'ensemble des participants au discours (Stalnaker 1978). Une IPD n'est acceptable que si le *common ground* inclut une proposition existentielle qui partage avec l'IPD sa restriction et sa portée nucléaire. Cette propriété des IPD a pour conséquence qu'elles ne tolèrent pas de réponse du type *rien* ou *personne*, puisque cela résulterait en un *common ground* incohérent. On peut donc dire des IPD que, contrairement aux IPI, elles déclenchent une présupposition forte, dans la mesure où celle-ci ne peut être annulée.¹⁵

Ce contraste trouve son origine dans le déterminant clausal. Il possède effectivement des propriétés anaphoriques qui rendent compte des différentes caractéristiques des IPD. En prenant appui sur des tests distributionnels, nous démontrons qu'il est engendré dans la périphérie gauche de la phrase. Il a donc pour complément un constituant qui dénote une proposition sémantique, laquelle doit donc être familière aux participants au discours. On peut alors mieux comprendre les spécificités pragmatiques de cette construction.

En effet, même s'il est toujours possible d'utiliser une IPI au lieu d'une IPD,¹⁶ le choix d'une IPD n'est jamais anodin. Lorsqu'il utilise une IPD, le locuteur indique à son interlocuteur qu'il fait référence de manière explicite à une proposition familière. Ce faisant, il peut, par exemple, signaler à son interlocuteur qu'il n'admettra pas *rien* comme réponse. Dans le cadre d'un échange conflictuel, il peut aussi renvoyer à une proposition que son interlocuteur souhaiterait oublier. On peut donc aisément percevoir la pertinence d'une étude des IPD pour une meilleure appréhension de l'interface syntaxe-pragmatique.

1.2.3 Interactions temps-modalité en CM

Le chapitre 4 se penche sur les modaux du CM. Il confirme les conclusions de Bernabé (1983), qui affirme que ce ne sont pas des auxiliaires. Nous appuyant sur de nouveaux tests, nous allons plus loin en démontrant qu'il s'agit en fait de verbes à montée. On a donc affaire à des structures biclausales, ce qui vaut tant pour les modaux épistémiques que pour les modaux radicaux. Cependant, en dépit de cette similitude structurale, on constate que les modaux épistémiques divergent de leurs homologues radicaux par leur interprétation

¹⁵ Voir Abusch (2010) pour une analyse possible de la présupposition déclenchée par les IPI.

¹⁶ L'inverse n'est pas vrai.

temporelle. Lorsqu'ils apparaissent dans une proposition principale, ils doivent être évalués au moment de l'énonciation. Dans une subordonnée, leur moment d'évaluation doit coïncider avec celui du verbe intensionnel sous lequel ils sont enchâssés. Ce type de restriction ne s'applique pas à l'évaluation des modaux radicaux. Ainsi, comme on peut le voir en (9a), lorsqu'un modal précède *té*, le marqueur du passé, il reçoit une interprétation épistémique. Dans le cas contraire, illustré en (9b), il reçoit une interprétation radicale.

- (9) a. Jan dwet té lakay li
 Jean devoir PST chez 3SG
 'Jean devait être chez lui.'
- b. Mari té dwet véyé ti frè 'y
 Marie PST devoir surveiller petit frère 3SG
 'Marie devait surveiller son petit frère.'

Ces observations ne sont pas exclusives au CM, car elles valent aussi pour les autres langues du monde.

La question que soulèvent ces données est celle de la perspective temporelle des modaux. Selon la définition qu'en donnent Rullmann et Matthewson (2018), ce terme désigne l'intervalle de temps auquel est évaluée la base modale¹⁷ (Kratzer 1977, 1981, 1991). Certains travaux affirment qu'il y aurait une corrélation entre la perspective temporelle d'un modal et sa base modale (Cinque 1999; Condoravdi 2002; Stowell 2004; Hacquard 2006; Borgonovo and Cummins 2007). Pour les auteurs de ces études, les modaux épistémiques auraient portée large sur le temps et les modaux radicaux portée étroite. Concrètement, placés dans une proposition principale, les modaux épistémiques sont évalués au moment de l'énonciation et ceci, peu importent les spécifications de temps de la phrase. En revanche, le moment d'évaluation des modaux radicaux est, lui, déterminé

¹⁷ Pour un modal épistémique, la base modale sera l'ensemble des connaissances du locuteur (ou d'une entité consciente pertinente). Pour un modal déontique, il s'agit de l'ensemble des règles en vigueur.

par lesdites spécifications. Ce contraste est illustré en (10).¹⁸ En (10a), le modal épistémique est évalué au moment de l'énonciation alors même qu'il porte les marques morphologiques du passé. Par contre, en (10b), le modal déontique est évalué sur la base des règles qui sont en vigueur à un moment *t* qui précède le moment de l'énonciation.

- (10) a. Jean devait être occupé.
 b. Marcelle devait garder son petit frère.

Pour rendre compte de ces faits, l'hypothèse nulle consisterait à invoquer la hiérarchie de Cinque (1999), illustrée en (1), ou une hiérarchie du même ordre. On aurait alors une structure schématisée en (11) où les modaux épistémiques sont engendrés au-dessus de TP et les modaux radicaux au-dessous.

- (11) [Mod_{epis}P Mod_{epis} ... [TP T ... [Mod_{rad}P Mod_{rad} ...*préjacent*]]]

Si l'on se fie à (1) ou (11), les verbes modaux seraient des verbes fonctionnels et ils apparaîtraient donc dans des structures monoclausales. Si cette analyse vaut bien pour l'italien (Cinque 2004), elle pose en fait problème pour les langues où les modaux sont des verbes lexicaux, comme, par exemple, le français (Authier and Reed 2009) et le CM. Dans ces langues, les modaux occupent en effet la même position. Une analyse purement structurale est donc difficile à soutenir pour toutes les langues du monde.

Il faut, toutefois, noter que certains linguistes réfutent l'idée qu'il y aurait une corrélation entre base modale et relation de portée avec le temps (Eide 2003, 2005; von Stechow and Gillies 2008; Martin 2011; Rullmann and Matthewson 2018). Selon ces auteurs, il n'y aurait pas de différence entre modaux épistémiques et radicaux : ils auraient tous deux portée étroite par rapport au temps. Pour soutenir ce point de vue, ces chercheurs mettent en lumière des données similaires à (12), où le modal épistémique est évalué à la lumière des connaissances du locuteur à un moment *t* antérieur au moment de

¹⁸ Les exemples proposés sont tous deux ambigus entre une lecture épistémique et une lecture radicale. Dans chaque cas, cependant, une des lectures est plus naturelle que l'autre. C'est à cette lecture que nous faisons référence dans nos commentaires.

l'énonciation. En effet, au moment où elle prononce (12), Sophie sait forcément qu'il ne peut pas y avoir de crème glacée dans le congélateur. En revanche, au vu de ce qu'elle savait au moment où elle a ouvert le congélateur, elle pouvait légitimement s'imaginer qu'il s'y trouvait de la crème glacée.

(12) [Contexte : Sophie ouvre le congélateur, espérant y trouver de la crème glacée.]

There might have been ice cream.

Adapté de von Stechow and Gillies (2008:87)

Afin de rendre compte de ces faits et préserver l'hypothèse selon laquelle les modaux épistémiques auraient portée sur le temps, Boogaart (2007) suggère que l'on a en réalité affaire à du discours indirect libre. Autrement dit, ces épistémiques seraient enchâssés sous des verbes intensionnels implicites. Cette explication est cependant rejetée par Rullmann et Matthewson (2018), dont les arguments, basés sur l'interprétation des indexicaux, tendent à invalider une analyse basée sur le discours indirect libre. Elles réaffirment donc que les épistémiques sont interprétés sous la portée du temps.

Notre investigation des modaux du CM va à l'encontre de cette conclusion. Nous référant à Stephenson (2007), nous affirmons que les exemples produits par Rullmann et Matthewson (2018) comportent des modaux épistémiques qui seraient enchâssés dans une proposition dont la tête serait un *parce que* abstrait. Ce complémenteur déclencherait un changement de perspective. On peut donc maintenir que la distinction entre modaux épistémiques et radicaux a un effet sur leur interprétation temporelle. À moins qu'ils ne soient enchâssés, les modaux épistémiques sont nécessairement évalués au moment de l'énonciation. Nous attribuons ce contraste à un autre facteur : l'orientation des modaux. Alors que les modaux radicaux sont orientés vers le sujet, les épistémiques sont orientés vers le locuteur. Autrement dit, les épistémiques se distinguent des radicaux par le fait que leur interprétation est relative à une entité consciente.

Nous inspirant notamment de Speas et Tenny (2003) et Hacquard (2006), nous considérons qu'il s'agit là d'un phénomène syntaxique. À l'instar de ces auteures, nous postulons que l'entité consciente qui est impliquée dans l'interprétation d'un modal

épistémique est le Siège de la Connaissance (*Seat of Knowledge*). Ce Siège de la Connaissance est en fait un rôle pragmatique assigné syntaxiquement par la tête de la projection Sen(tience) P(hrase), une projection abstraite située dans la portion haute de la périphérie gauche. Nous attribuons à SenP des propriétés événementielles, dont un ancrage temporel. Nous basant alors sur l'observation que le temps d'évaluation d'un modal épistémique doit correspondre à l'ancrage temporel de SenP, nous postulons que les épistémiques possèderaient un trait [sen(tience)] responsable de la distinction entre modaux épistémiques et radicaux. Ce trait rend compte de la dépendance interprétative des épistémiques vis-à-vis de SenP. Notre analyse repose donc à nouveau sur le postulat d'un encodage syntaxique de certaines notions pragmatiques.

1.2.4 Objectifs empiriques généraux

L'étude des trois faits de langue susmentionnés contribue à une meilleure connaissance du CM. Au même titre que les travaux de Zribi-Hertz et Jean-Louis (2014, 2017, 2018, 2019), elle porte sur le CM contemporain. On peut raisonnablement postuler que la grammaire du CM a connu des changements depuis les travaux de Bernabé (1983, 2003) et Damoiseau (1999, 2004, 2008, 2012b, 2012a), ne serait-ce qu'en raison du développement massif du bilinguisme (Bernabé 2004, 2009; Bellonie 2011; Beck 2018). Le contact continu du CM avec le français, sa langue lexificatrice, a fort probablement eu des effets sur sa grammaire et sur l'étendue de la variation intralangagière (Térosier et al. à paraître). La présente thèse pourrait donc permettre d'établir de quelle manière le CM a évolué, de déterminer quel rôle le français aura joué dans cette évolution et d'évaluer l'ampleur de la variation.

1.3 Organisation de la thèse

Le chapitre 2 propose une analyse des DP relativisés du CM se basant sur l'hypothèse d'une couche DP scindée. Ladite analyse est également étendue aux DP simples. Le chapitre 3 offre une étude exploratoire des IPD du CM qui se caractérisent par la présence en position finale d'un déterminant clausal. Y sont abordées la syntaxe, la sémantique et la pragmatique de ces constructions. Le chapitre 4 porte sur les modaux du CM et propose une analyse syntaxique de la corrélation entre la perspective temporelle d'un modal et son

orientation. Il y est proposé un trait [sen] qui rend compte de la différence entre modaux épistémiques et radicaux. Enfin, le chapitre 5 est une conclusion.

Les articles qui constituent les chapitres 2, 3 et 4 ont été rédigés en anglais en vue de publication. Ils sont chacun suivis d'une bibliographie spécifique. Une bibliographie générale est fournie en fin de thèse.

Chapitre 2. A Split-DP analysis of Martinican Creole definite noun phrases: Evidence from relative clauses

Cet article a été soumis au Journal of Pidgin and Creole Languages.

2.1 Introduction

As illustrated in (1), Martinican Creole (MC) definite noun phrases are marked by the postnominal article, *la*¹ (or one of its phonologically conditioned allomorphs – *lan*, *a*, or *an*²). For the sake of clarity, this determiner shall henceforth be referred to and glossed as LA. It will additionally be typeset in bold in examples.

- (1) Chat **la** ka bwè let
 cat LA IMPF drink milk
 ‘The cat is drinking milk.’

¹ Syea (2017:61-74) notes that the definite article, *la*, is shared with other French creoles, inter alia Haitian Creole (Joseph 1989), Guadeloupean Creole (Bernabé 1983; Damoiseau 2012a), and Mauritian Creole (Guillemin 2009). However, the properties of this determiner vary from one creole to another. See, for instance, Déprez (2018, 2019) for a comparison of *la* in Haitian and Mauritian Creole. The present study may thus contribute to a better understanding of crosslinguistic variation among French creoles.

It should further be noted that the present paper discusses neither bare definites nor proper names. The interested reader may turn to Zribi-Hertz and Jean-Louis (2014, 2018) for data and an account based on Löbner’s (2011, 1985) theory of definiteness. That is, their analysis is based on the premise that definiteness marking depends on the lexical type of the noun. I leave these issues for later research.

² There may in fact be two more allomorphs – *yan* and *nan*. Damoiseau (1999:33) suggests that *yan* occurs after nasal vowels, but I am not entirely convinced that it deserves to be treated as a genuine variant. Instead, I posit that this is a purely phonetic phenomenon consisting in the epenthesis of the semi-vowel [j] between two nasal vowels. Testing out this hypothesis must, however, be left for further research. Another variant, *nan*, is proposed by a JPCL reviewer, but this form is excluded from my consultants’ varieties, as well as mine. It may thus be restricted to certain dialects. In any case, the existence of other allomorphs has no bearing on the analysis developed in this paper.

Previous studies (Gadelii 1997, 2007; Déprez 2007; Zribi-Hertz and Jean-Louis 2014) have suggested that this determiner heads the topmost projection of the nominal left periphery. However, building upon Ihsane and Puskás (2001), I propose that this projection should be split into two separate projections, DefP and SpecifP. The lowermost projection, DefP, encodes definiteness, which I construe in terms of uniqueness (Frege 1892; Russell 1905; Hawkins 1978). Meanwhile, the topmost projection, SpecifP, encodes specificity. Following Ionin (2006), I hold that a specific noun phrase is characterized by the fact that it refers to a unique entity which possesses some property that the speaker considers worthy of note. This proposal is meant to account for the fact that LA-marked noun phrases may be ambiguous between a specific and a nonspecific reading, as illustrated in (2).

- (2) Nou kay pran tren **an** pou alé Pari
 1PL PROSP take train LA for go Paris
 ‘We will take the train to go to Paris.’

On its specific reading, the definite noun phrase *tren an* ‘the train’ refers to a particular train which belongs to the common ground. In contrast, on the nonspecific reading, the identity of the train is of little interest to the speaker, who simply refers to an event of train-taking. I follow I&P in positing that this semantic nuance is reflected in the structural makeup of the definite noun phrase. When interpreted as nonspecific, it projects no further than DefP. On the specific reading, on the other hand, both DefP and SpecifP are projected.

The main piece of evidence for this analysis comes from MC restrictive relative clauses which are characterized by optional determiner doubling. The first occurrence of the definite article appears immediately after the head noun. The second occurrence appears in string-final position. Restrictive relative clauses are thus NP LA RC (LA) strings. While postnominal LA is obligatory, string-final LA is optional when it is in the scope of an intensional operator, and its absence/presence has interpretive effects. This is illustrated by the contrast in (3), where the relativized noun phrase is in the scope of the irrealis marker *ké*. In the presence of the string-final determiner, as in (3a), the relativized noun phrase may receive either a specific or nonspecific interpretation. On the other hand, when it is absent, as in (3b), the noun phrase is obligatorily interpreted as nonspecific.

- (3) a. Man ké ba Mariz kado a i mandé a
 1SG WOLL give Maryse gift LA 3SG ask LA
 i. 'I will give Maryse the gift that she asks, whatever it is.' (nonspecific reading)
 ii. 'I will give Maryse the (particular) gift that she asked.' (specific reading)
- b. Man ké ba Mariz kado a i mandé
 1SG WOLL give Maryse gift LA 3SG ask
 'I will give Maryse the gift that she asks, whatever it is.' (nonspecific reading)

The application of the Raising Analysis to MC relative clauses (Schachter 1973; Vergnaud 1974; Bianchi 1999; Kayne 1994; de Vries 2002) reveals that both articles are base-generated outside the relative clause. Thus, I propose that postnominal LA spells out Def⁰, and its string-final counterpart Specif⁰. This provides a straightforward account for the unavailability of a specific interpretation in (3b). In contrast, the ambiguity of (3a) follows from the assumption that the string-final article licenses covert movement of the relativized noun phrase to a position in the sentential left periphery (Ihsane and Puskás 2001). The ambiguity of the relativized noun phrase depends then on whether the copy which feeds temporal interpretation has wide or narrow scope with respect to the irrealis marker (Stowell 1993, 1996, 2007). Crucially, it should be noted that the two articles involved in MC relative clauses are homophonous.

On the present analysis, it is predicted that determiner doubling should extend to simplex specific definite noun phrases. This is apparently contradicted by (2), which features a single occurrence of LA. However, an independently motivated phonological rule, the *DET DET filter, prohibits the overt realization of string-adjacent homophonous determiners. Such a rule has been proposed for both MC (Bernabé 1983) and Haitian Creole (HC) (e.g. Lefebvre and Massam 1988; Lumsden 2009). Thus, I propose that determiner doubling applies equally to simplex and relativized referential definite noun phrases.

The grammaticality judgments presented in this paper come from interviews with six consultants aged between 25 and 72. These were complemented by my own intuitions as a native speaker, as well as informal discussions with other informants. I further

conducted an online survey whose purpose was to confirm earlier findings. The results of this survey suggest, however, that there is wide variation among MC speakers. The analysis presented in this paper is thus subject to the caveat that it may only apply to certain dialects of MC. An in-depth analysis of variation must be left for later research.

This article is organized as follows. Section 2.2 defines the notions of definiteness and specificity on which this analysis hinges. Section 2.3 provides some background on definite noun phrases in MC and reaches the conclusion that they are amenable to a Split-DP analysis à la Ihsane and Puskás (2001). Section 2.4 probes the issue of determiner doubling in restrictive relative clauses and argues that this phenomenon provides evidence for the analysis sketched in section 2.3. Section 2.5 returns to the issue of simplex definite noun phrases and establishes that they too involve determiner doubling. Finally, section 2.6 concludes the paper.

2.2 Definiteness and specificity

This section sets the theoretical background for the analysis of the MC data. Section 2.2.1 is concerned with the notion of definiteness, while section 2.2.2 deals with specificity. Section 2.2.3 builds upon I&P to offer a structural account of these features.

2.2.1 Definiteness

There have been two main perspectives in the study of definiteness. The first approach, which dates back to work by Frege (1892) and Russell (1905), considers that definiteness should be defined in terms of uniqueness. The basic premise is that the use of a definite noun phrase is felicitous if there is a unique entity which matches the property denoted by the NP. This is illustrated in (4).

- (4) I've just been to a wedding. The bride wore blue.
(Lyons 1999:7)

The definite noun phrase in (4) is felicitous on the assumption that wedding events involve a unique bride.

A second school of thought holds that definiteness involves familiarity (Christophersen 1939; Heim 1982). On this view, for a definite noun phrase to be felicitous, its referent must be familiar to both speech participants, i.e. it must belong to the common ground. This is exemplified in anaphoric uses of definites, such as (5).

(5) A man and a woman came in. The man was speaking German.

The definite noun phrase *the man* in the second sentence is licensed by the introduction of its referent in the domain of discourse via the indefinite noun phrase *a man* in the previous sentence.

The question is whether either of these approaches is able to account for all uses of definite noun phrases, thus making its rival dispensable. The fact is that neither theory is able to achieve this. For example, it is not quite straightforward how a uniqueness-based account of definiteness could accommodate cases such as (6). Here, it would be wrongly predicted that the definite noun phrase *the student* should be infelicitous, given the presence of other students in the situation described.

(6) [Two academics]
A: How did the seminar go?
B: Fine. The student gave an excellent presentation, which generated a really good discussion, with all the other students contributing as well.
(Lyons 1999:14)

This suggests that definiteness cannot be reduced to uniqueness.

Familiarity-based accounts do not fare any better. This is illustrated in (7), taken from Lyons (1999:14), where the definite is undeniably felicitous although there has been no previous mention of a hammer, neither is it necessarily the case that the hammer in question belongs to the common ground.

(7) Pass me the hammer, will you?

Familiarity, then, is unable to handle all uses of definite noun phrases.

A unified analysis, although desirable, seems impossible to achieve, since neither uniqueness nor familiarity can account for the whole range of data on its own. But this does not entail that either approach should be invalidated. Schwarz (2009, 2013) suggests these two views are in fact complementary. His hypothesis finds support in the fact that some languages, notably certain dialects of German,³ have two distinct definite articles: a weak definite article, which is used in cases which satisfy the uniqueness condition, and a strong definite article, which marks definiteness in cases where it is construed in terms of familiarity (Schwarz 2009). The contrast between the two forms is shown in (8) and (9). As expected, the strong definite article is associated with anaphoric uses, as illustrated in (8). On the other hand, the weak definite article is preferred in situations where uniqueness applies. This is shown in (9), where the situation described involves a unique glass-cabinet.

- (8) Hans hat einen Schriftsteller und einen Politiker interview. Er
Hans has a writer and a politician interviewed He
hat #vom / von dem Politiker keine interessanten
has from-the_{weak} from the_{strong} politician no interesting
Antworten bekommen.
answers gotten
‘Hans interviewed a politician. He didn’t get any interesting answer from
the politician.’
(Schwarz 2009:30)

³ In Standard German, the distinction between these two articles is limited to cases where the definite noun phrase is immediately preceded by a preposition. In this context, the weak definite noun phrase contracts with the preposition. The strong definite article, on the other hand, stands as a free morpheme. This contrast is illustrated in (8-9). In Austro-Bavarian, the contrast is even more transparent, since the distinction between the strong and the weak article is also visible in subject and object position (Wiltschko 2012; Simonenko 2013).

- (9) Das Buch, das du suchst, steht im / #in dem Glasschrank.
 the book that you look.for stands in-the_{weak} in the_{strong} glass-cabinet
 ‘The book that you are looking for is in the glass-cabinet.’
 (Schwarz 2009:39)

The division of labor between the two forms is presented in Table 1, which adopts Hawkins’s (1978) classification of definite uses.

Type of definite use		Strong article	Weak article
<i>Immediate situation</i>		*	ok
<i>Larger situation</i>		*	ok
<i>Anaphoric</i>		ok	*
<i>Bridging uses</i>	<i>Part-whole relation</i>	*	ok
	<i>Producer relation</i>	ok	*

Table 1.1: Distribution of the strong and definite article in German

These different types of uses are illustrated in (10-14).⁴

Let us start with immediate situation uses. An example is provided in (10), where the relevant situation must contain a single dog. In German, such uses require the weak definite article, which indicates that uniqueness is the relevant criterion in such cases.

- (10) **Immediate situation use**
 Don’t go in there, chum. *The dog* will bite you.
 (Hawkins 1978:112)

Larger situation uses are also associated with the weak definite article in German.

⁴ For the sake of brevity and exposition, I have limited the discussion to English examples. The interested reader may turn to Schwarz (2009, 2013) for standard German data, and to Wiltschko (2012) and Simonenko (2013) for Austro-Bavarian facts.

This entails that these uses also rely on uniqueness to license the definite noun phrase. However, they differ from immediate situation uses on the grounds that their interpretation involves situations of a broader type. For example, if (11) were uttered in England, it is expected that the speech participants would draw on their shared knowledge of English political life to identify the unique current resident of 10 Downing Street as the referent of the definite noun phrase. It would then be irrelevant that this individual is not present in the immediate context of utterance. What constitutes the appropriate larger situation depends on the context of utterance; therefore, if (11) were uttered in France, the intended referent would be the current resident of Hôtel Matignon.

(11) **Larger situation use**

The Prime Minister has just resigned.

(Hawkins 1978:89)

In the case of anaphoric uses, the definite noun phrase is licensed by the earlier introduction of its referent in the domain of discourse through an indefinite. In German, these uses require the strong article, which implies that familiarity plays a crucial role in their licensing. Note, however, that this does not entail that uniqueness has no part to play here. If the first sentence in (12) were replaced with *Two women came in*, the definite article would be infelicitous in the continuation.

(12) **Anaphoric use**

A man and *a woman* came in. *The woman* was speaking Swahili.

The last two types of uses are the so-called bridging uses, which Hawkins (1978) refers to as associative anaphora. In both types, the use of the definite article is licensed by the earlier introduction of a noun phrase – the *trigger* in Hawkins’s (1978:123) terms – whose referent is related in a certain way to that of the subsequent definite noun phrase. What sets apart the two types of bridging uses, then, is the nature of this relation. In (13), the definite stands in a part-whole relation with the trigger. In German such uses require the weak definite article. In contrast, (14) involves a producer relation. German uses a strong definite article in similar cases.

(13) **Bridging use: part-whole relation**

I bought *a new car*, but something feels off with *the clutch*.

(14) **Bridging use: producer relation**

Fred was discussing an interesting book in his class. He is friendly with the *author*.

Adapted from Hawkins (1978:86)

In section 2.3, I shall establish the properties of the MC definite article on the basis of its compatibility with these various types of uses. But let us first consider the consequences of the fact that some languages may have two definite articles – one which encodes uniqueness and another which marks familiarity.

The first question that comes to mind is whether these two forms are independent of each other, or whether they are related in some way. The latter option is in fact supported by the semantics and licensing conditions of these two articles. As noted above, there are reasons to posit that uniqueness plays a part in both types of definites. For example, it was noted in (12) that anaphoric uses of definites often require that they refer unambiguously to a unique previously introduced referent. The status of uniqueness as a basic building block for both types of definite articles is reflected in the denotations which Schwarz (2009) proposes for each variant of the definite article.

- (15) a. $\llbracket \text{the}_{\text{weak}} \rrbracket = \lambda s_r. \lambda P. \iota x. P(x)(s_r)$
b. $\llbracket \text{the}_{\text{strong}} \rrbracket = \lambda s_r. \lambda P. \lambda y. \iota x. P(x)(s_r) \ \& \ x = y$
(Schwarz 2009:264)

The denotation of the weak definite article, given in (15a), states that there must be a unique entity with the relevant property in the situation provided by the situational pronoun s_r . The denotation of the strong definite article, represented in (15b), builds upon (15a) by adding an anaphoric index argument y , which must correspond to an entity previously introduced in the domain of discourse. It further introduces an identity condition, which, Schwarz argues, can override the uniqueness requirement, as observed in (6). In some sense, then, it can be said that the strong article is more complex than the weak one.

Note that the additional semantic complexity of the strong article may be reflected at the morphological level. This is illustrated in German, where the weak article is morphologically simpler, which allows it to contract with an adjacent preposition. The strong article, on the other hand, is a free morpheme which cannot contract with preceding prepositions, a consequence of its greater morphological complexity. Schwarz (2013) also discusses Hausa which, like German, possesses a strong and a weak form to mark definiteness, respectively the article *dîn* and the weak suffix *-n*. Jaggar (2001) argues that *dîn* is a morphologically complex form which results from the incorporation of the weak form *-n* into a semantically empty morpheme *dî*. On the view that morphological incorporation results from head movement, a reasonable assumption is that we may be dealing with two adjacent functional projections. This suggests that definite noun phrases may involve an articulated structure comprising at least two heads that can host definite articles. This conjecture will be further discussed in section 2.2.3.

This first look at definiteness has led us to the conclusion that neither uniqueness- nor familiarity-based analyses can account for all uses of definite noun phrases. This is reflected in the analysis developed by Schwarz (2009, 2013), who holds that there are in fact two types of definiteness, and that these may be mapped onto two distinct forms. This configuration may be notably observed in German and Hausa. In both languages, the weak definite article is associated with immediate situation, larger situation, and part-whole bridging uses. In all these, it is uniqueness which licenses the definite noun phrase. The strong article, on the other hand, is found in anaphoric and producer relation bridging uses. Here, the licenser of definites is anaphoricity, but uniqueness remains relevant (although this requirement may be bypassed). The additional semantic complexity of this article may have morphological, and possibly structural, reflexes in some languages. In the next section, we shall turn our attention to the notion of specificity.

2.2.2 Specificity

There is no universally accepted definition of specificity. Therefore, the aim of this section is to provide the reader with a working definition that may shed some light on the phenomena under study. That definition is taken from Ionin (2006).

Building on Fodor and Sag's (1982) seminal work on referential indefinite noun

phrases, Ionin (2006) proposes that a noun phrase is specific if the following conditions are met: (i) the speaker intends to refer to a unique entity which matches the description of the NP; and (ii) this unique referent must have some property which the speaker considers noteworthy. Consider the following example, reproduced from Ionin (2006:187), where *this* is a specificity marker, distinct from the homophonous demonstrative.

(16) This strange letter came in the mail.

The felicitous utterance of (16) requires that the speaker refer to a unique letter which has some property judged noteworthy by the speaker. The nature of this property depends on context. For example, it may be that the letter in question stands out from other letters by the fact that it alone is anonymous. If, on the other hand, all letters were anonymous and the letter which the speaker has on his mind had no other distinguishing property, (16) would then be infelicitous. While this example clearly shows that noteworthiness is a crucial condition, this paper focuses on the requirement that the speaker has a unique entity on his mind. In all relevant examples, it will then be tacitly assumed that this entity does possess some noteworthy property.

Now, a much more important issue concerns the relation between definiteness and specificity. I take these features to be independent on the ground that specific noun phrases may be either indefinite or definite. Thus, in (17a), the indefinite noun phrase *a documentary on police brutality* may refer to a unique documentary which all the speaker's roommates watched. Likewise, in (17b), the definite noun phrase *the doctor* refers to a unique individual which the speaker has on her mind.

- (17) a. My roommates all watched a documentary on police brutality.
b. The doctor gave a prescription.

These two examples show that specificity is independent from (in)definiteness. Let us now see whether the converse holds.

The fact that indefiniteness is independent of specificity is evidenced by data such as (17a), which, in addition to the specific reading described above, has a covarying

reading. On this interpretation, the reference of the object noun phrase varies with that of the subject. Roommate 1 may have watched documentary A, while roommates 2 and 3 watched documentary B, roommates 4 documentary C, and so on. This leads to the conclusion that indefiniteness and specificity do not entail one another.

It is equally true that definiteness does not entail specificity. In fact, it has been known since at least Donnellan (1966) that definite noun phrases may be ambiguous between an attributive and a referential reading. To illustrate the difference between these two interpretations, consider (18):

(18) The president is incompetent.

On the attributive reading, the speaker does not have any particular entity on his mind. It may be that, owing to the poor state of the economy, the speaker considers the current president, whoever he may be, to be incompetent. In contrast, on the referential reading, the speaker may be referring to a particular individual, say Jones, whom he identifies as the current president. Thus, in uttering (18), the speaker claims that Jones is incompetent. If it turns out that the speaker is mistaken in believing that Jones is the current president, the truth conditions of (18) will not be affected. All that matters is whether Jones is incompetent or not. On the other hand, on the attributive reading, for (18) to have a truth value it must be the case that there is a unique individual matching the description of the nominal predicate. Otherwise, a presupposition failure obtains. The crucial difference between these two readings hinges on the speaker's intention, which brings us back to the definition of specificity sketched above. On this analysis, the so-called referential reading is construed as specific, and the attributive reading as nonspecific.⁵ It follows then that

⁵ A possible challenge for the view developed here is that specific definites do not appear to be subject to the noteworthiness requirement proposed by Ionin (2006). They are seemingly only subject to the condition that they refer to a unique referent which the speaker has on his mind. This difference between specific indefinites and definites vis-à-vis the noteworthiness condition is, I propose, a byproduct of more fundamental differences. A general property of definite noun phrases is that they are subject to the uniqueness requirement discussed in section 2.3.1. It follows then that the referents of definite noun phrases are necessarily unique. In contrast, indefinite noun phrases are not subject to the same uniqueness requirement. The uniqueness of their referents must then proceed from some noteworthy property that they are endowed with. If this

definiteness and specificity are independent of one another.

To sum up, the definition of specificity adopted in this paper is the one proposed by Ionin (2006). A noun phrase can be described as specific in case the speaker intends to refer to a unique entity which matches the description of that noun phrase and possesses some property that the speaker considers noteworthy. It has also been established that specificity and (in)definiteness do not entail one another. In the next section I shall consider the structural correlates of these notions.

2.2.3 The syntactic encoding of definiteness and specificity

Sections 2.2.1 and 2.2.2 reached the conclusion that specificity and definiteness should be treated as distinct features on the grounds there is no implicational relation between them. The aim of the present section is to determine how these semantic features are mapped onto the structure, the underlying assumption being that these are morphosyntactic features as well.^{6,7} A first approach compliant with Minimalist assumptions suggests that these

conjecture is on the right track, it is then no surprise that specific definites are subject to a single requirement, viz. that their referent be on the speaker's mind.

⁶ There is ample evidence for the view that definiteness should be treated as a grammatical feature. For instance, definite and indefinite noun phrases are known to behave differently in the object position of impersonal constructions (see, a.o., Belletti 1988; Belletti and Bianchi 2016). For the sake of brevity, I refer the reader to Lyons (1999) for additional arguments in favor of this view.

⁷ A JPCL reviewer asks whether there is evidence for the treatment of specificity as a grammatical feature, rather than a purely semantic/pragmatic one. An overview of this issue would take me too far afield. I shall thus limit the discussion to a few facts.

First, it appears that specificity has morphological reflexes in some languages of the world. For example, Samoan possesses a specificity marker, *le*, and *se*, a nonspecificity marker (Lyons 1999:57-58). Both markers are compatible with definite and indefinite noun phrases.

Second, specificity is also known to have effects on case-marking. Enç (1991) reports that Turkish specific indefinite objects bear accusative case. Their nonspecific counterparts appear in bare form.

Finally, it is a well-known fact that *wh*-subextraction does not affect specific and nonspecific noun phrases equally (Fiengo and Higginbotham 1981). These so-called specificity effects have been observed in a wide range of languages, including English, Persian (Karimi 1999), Gungbe (Aboh 2005), and Spanish (Ticio 2010).

features may be bundled together and projected onto a single head (D^0) as it enters the derivation. On the other hand, under the ‘one property-one feature-one head’ assumption (Rizzi and Cinque 2016) which underlies the cartographic approach (Shlonsky 2010), definiteness and specificity would project onto two distinct functional heads. This is the postulate adopted in this paper. I thus hold that definiteness and specificity are encoded by distinct functional heads – Def(initeness)^0 and Specific(ity)^0 – whose relative ordering is such that Specif^0 scopes over Def^0 .⁸ This proposal elaborates on Ihsane & Puskás (2001) (henceforth, I&P) analysis of definite noun phrases.

I&P belongs to the vast literature which explores the parallelism between the noun phrase and the sentence (see Laenzlinger 2017 for an overview).⁹ The cornerstone of I&P is that Rizzi’s (1997) split-CP hypothesis may be extended to the nominal domain. On par with C^0 , D^0 can be split into distinct functional heads whose properties are reminiscent of those of their sentential counterparts. The impetus for this proposal is that definite descriptions may be ambiguous between a specific and a nonspecific reading. This is illustrated in (19), I&P’s (1a).

- (19) J’ ai pris le train French
 I have taken the train
 ‘I took the train.’

On its specific reading, the definite noun phrase refers to a certain train which was previously introduced in the domain of discourse. On the nonspecific reading, on the other hand, the noun phrase does not refer to any previously discussed train; the sentence as a whole refers to an event of train-taking.¹⁰

I take these various facts to provide robust evidence for the view that specificity is a morphosyntactic feature.

⁸ Decisive evidence for this view will be presented in section 2.4.

⁹ See also section 1.1.1 for some references on the parallelism between the DP and the clause.

¹⁰ The nonspecific interpretation of (19) belongs to the class of what Poesio (1994) and Carlson et al. (2006) call weak definites (these are not to be confused with Schwarz’s (2009) weak-article definites). This class of definites possesses a set of properties which set them apart from run-of-the-mill definites. To begin with, their distribution is restricted to the object position of either a verb or a preposition. Furthermore, they involve

I&P propose that the difference between those two interpretations is reflected at the structural level. Each feature corresponds to a separate functional head. The lower head, Def⁰, encodes definiteness. As such it “selects one object in the class of possible objects” (I&P:40). The higher head, Top⁰ in their terminology, marks specificity. I&P’s view is that it “relates to pre-established elements of discourse” (40). The difference between the two readings of (19) may then reduce to a matter of structural complexity. Nonspecific definites are DefPs while specific ones are TopPs. The underlying assumption is that, in contrast with DefP, the merger of TopP is optional. This follows, I&P argue, from the fact that the properties of DefP and TopP parallel those of their clausal counterparts, FinP and TopP.

As the lowest head of the C-system, FinP is oriented toward the Infl domain. This is evidenced in the fact that Fin⁰ may host complementizers which must match features of the Infl domain, notably finiteness. In the same vein, DefP hosts determiners whose form is determined by the features of the nominal domain.¹¹ For instance, the difference between

some sort of semantic enrichment. For example, on its weak definite reading, example (i) (Carlson et al.’s (15a)) refers to the fact that Mary went to a store and did some shopping while she was there.

- (i) Mary went to the store

It would appear that weak definites do not have to satisfy the uniqueness and familiarity requirements observed with regular definites. This is illustrated in (ii) (Carlson et al.’s (19)), where it is not necessarily the case that Bob and Mary went to the same store.

- (ii) Bob went to the store, and Mary did too.

Similarly, in (19), it is possibly the case that the speaker took multiple trains on his way to Paris.

While this seemingly suggests that weak definites should not be lumped together with regular definites, Schwarz (2014) aptly demonstrates that they do in fact involve uniqueness. This can be seen in (19) where, although the speaker may have taken multiple trains, he cannot have taken more than one train at any single moment on his journey. Likewise, in (ii), Bob and Mary each went to one unique store. I will then adopt Schwarz’s (2014) view that weak definites do belong to the class of definites. The interested reader is referred to this paper for a technical implementation of this analysis.

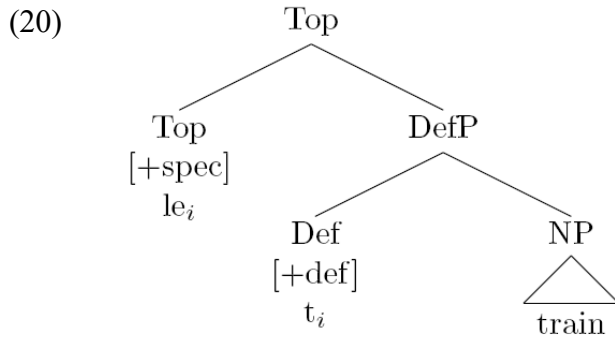
¹¹ It may very well be that in some languages (e.g. French) the definite article is first-merged in a lower AGR node (Tellier and Valois 1994; Tellier 2001). The rationale behind this postulate is that French possesses an expletive definite article (Vergnaud and Zubizarreta 1992), whose main function would therefore reduce to

count and mass nouns may be marked on the determiner. Another similarity between FinP and DefP lies in their function as “existence-anchor[s]” in I&P terminology. Finiteness ensures the temporal anchoring of the event, which in turn defines the truth conditions of the sentence. Similarly, definiteness determines whether a presupposition of existence applies to the denotation of the noun phrase. When this presupposition obtains, Def⁰ is lexicalized as the definite article. When it does not, Def⁰ is spelled out as the indefinite article. The obligatoriness of DefP mirrors that of FinP, since a noun phrase is either definite or indefinite, just as a clause is be either finite or non-finite.

As for the parallelism between specificity, a nominal feature, and topichood, a clausal feature, I&P argue that they both involve a relation with the knowledge shared by the speech participants. Hence I&P’s choice to label the functional head which marks specificity as Top⁰. But the similarities do not end here. Unlike DefP and FinP, nominal and clausal TopP are both optional, a property derived from the fact that specificity and topichood are privative, rather than binary, features. In the clausal domain, it would make little sense for a constituent to be [-Topic], as this would suggest that phrases marked as such should be treated as banned from previous discourse. Phrases which have no connection with previous discourse are simply non-topic. In the same spirit, a noun phrase which has no relation with the common ground is nonspecific, rather than [-specific].

As for the derivation of the definite noun phrase in (19), I&P posit that the definite article is first-merged under Def⁰. When nothing else happens, the nonspecific reading obtains. When, on the other hand, Top⁰ merges with DefP, the noun phrase receives a specific reading. Then, the definite article is head-moved to Top⁰. This derivation is illustrated in (20), an adaptation of I&P’s (12).

spelling out the phi-features associated with its NP complement. Tellier (2001) suggests that this determiner undergoes head movement to D. By hypothesis, this determiner has a homophone which spells out a [+DEF] feature and is e-merged in D. Tellier’s argument revolves around the view that the expletive determiner is not associated with a [+DEF] feature. The only reason why D is projected in that configuration is because of its crucial role in argumenthood (Longobardi 1994). While I do concur with the premise that the French definite article may originate in an AGR-like position, I hold that the definite article in (19) marks uniqueness in both its specific and nonspecific reading. Again, recall Schwarz’s (2014) demonstration that weak definites do involve uniqueness.



This structural analysis opens the possibility that in some languages Top⁰ and Def⁰ may be realized by two distinct morphemes. I shall argue below that MC is such a language.

Another interesting point made by I&P concerns the interaction of nominal and clausal Top⁰. They argue that movement of a specific noun phrase to the Spec of clausal TopP is licensed by the [+specific] feature borne by nominal Top⁰. The evidence for this claim comes from the contrast in (21) (I&P's (4)). In Hungarian, definite noun phrases are ambiguous between a specific and a nonspecific reading when they remain in situ, as illustrated in (21a). In contrast, when definite noun phrases occupy a left-peripheral position, as in (21b), only the specific reading is available.

- (21) a. Anna lemaradt a vonatrol Hungarian
 Anna down-stayed the train-from
 'Anna missed the train.'
- b. A vonatrol lemaradt Anna
 the train-from down-stayed Anna
 'Anna missed the train [specific].'

I&P argue that the availability of a specific reading in (21a) indicates that movement to the left periphery may be covert.¹² They postulate that all specific noun phrases sit in clausal Spec,TopP at LF. Crosslinguistic variation may then take place at the following two

¹² In other words, movement takes place after Spell-Out, i.e. after the syntactic derivation has run its course and transfer to the interfaces has taken place (Chomsky 1995).

levels.¹³ First, movement can take place either in overt syntax or at the level of the logical form (LF). Secondly, in case movement is overt, it can be either obligatory or optional. We may thus distinguish between three types of languages: (a) languages where movement can only take place at LF; (b) languages where overt movement is obligatory in overt syntax; and (c) languages where overt movement is possible but optional.

While these insights from I&P form the basis for the present analysis, I would like to point at the following similarities and differences between my proposal and theirs. The first similarity concerns Def⁰, the lowest head in the nominal left periphery, which, in line with I&P, I take to encode definiteness and to host the definite article.¹⁴ The crucial role of this functional head is to mark uniqueness, which, as we saw in section 2.2.1, is at the very foundation of definiteness. As regards specificity, I concur with I&P's assumption that it is encoded by a higher functional head. However, my analysis diverges from theirs as regards the semantics of this head. I&P argue that specificity should essentially be construed as familiarity, i.e. the referent of a specific noun phrase is held to belong to the common ground. This is quite different from Ionin's definition (2006), which I adopt in this paper. That is, I hold that a specific noun phrase is one whose unique referent the speaker has in mind. On this view, the hearer's state of knowledge is relevant but not crucial, and this constitutes a significant difference between the two proposals.¹⁵ This accounts not only for the fact that the referent of a specific indefinite is known to the speaker, but not the hearer, but also for the fact that definite noun phrases may be used even when the hearer has no prior knowledge of the referent.¹⁶ To reflect this point of

¹³ The underlying assumption is that all languages are similar at LF. Given the fact that LF feeds interpretation, I hold that for a given interpretation, all languages will share a unique LF representation. Therefore, all constituents should occupy a similar position. We would thus expect all specific DPs to occupy the same position at LF.

¹⁴ It is, however, possible that this determiner may be e-merged in a lower position. See fn. 11.

¹⁵ Note that the present view is very close with Ihsane's (2008) proposal that specific indefinites involve the projection of a S(peaker) Ref(erence) Phrase, which relates exclusively to the speaker's state of knowledge.

¹⁶ A typical example of this is provided by the so-called establishing relatives discussed in Hawkins (1978), an example of which is provided in (i) (Hawkins's 3.16).

- (i) What's wrong with Bill? Oh, *the woman he went out with last night* was nasty to him.

departure from I&P, I shall label this projection *SpecifP*, rather than *TopP*. Nevertheless, I share I&P's view that this projection licenses topicalization of the noun phrase.

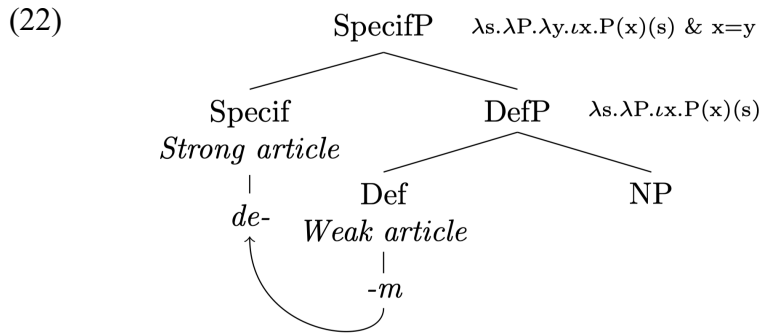
In terms of semantics, adapting Schwarz's (2009) analysis of the German strong definite article, I propose that the denotation of *Specif*⁰ takes a null individual pronoun as one of its arguments. The identity of this pronoun is determined by an assignment function relative to the speaker's state of knowledge. As with the strong definite article, the specificity marker imposes that the referent of *DefP* be identical with the entity which the null pronoun refers to.¹⁷ In fact, given the earlier observation that the German and Hausa strong article are morphologically more complex than the weak article, I would like to propose that in both languages the strong article is a product of head movement. I assume that the weak article is merged under *Def*⁰, and that from there it moves to *Specif*⁰, where it picks up an extra morpheme and the aforementioned individual pronoun. On this view,

It is rather obvious that the hearer has no knowledge of the woman to whom the speaker refers. I take this as evidence for the view that hearer knowledge is not absolutely necessary to license definite noun phrases. I do, however, concede that when such situations obtain, a process of accommodation must take place, causing the referent to enter the common ground (Heim 1982, 1983).

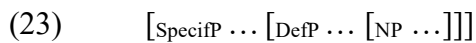
This is also reminiscent of what Stalnaker (1974) labels pragmatic presuppositions. See also the appendix to chapter 3 where I discuss the relation between the common ground and a speaker's discourse commitments (the subset of his beliefs which he makes publicly known) within the framework of Farkas and Bruce (2010).¹⁷ In a sense, if we leave aside Ionin's (2006) additional requirement that specificity imposes a noteworthiness condition (for the reasons mentioned in fn. 5), one might say that Schwarz's (2009) strong-article definites are also specific. On Ionin's (2006) view, a noun phrase is held to be specific when the entity it refers to belongs to the speaker's state of knowledge. This readily applies to strong-article definites modulo the additional constraint that the entity must also belong to the hearer's state of knowledge. The difference between specific indefinites and definites would then reduce to whose state of knowledge is relevant.

This observation has interesting consequences, as there has been mounting evidence in support of the syntactic representation of speech participants in the structure of the clause (see Zu 2018 and references therein). For instance, there is a difference between interrogative and declarative sentences w.r.t. which speech participant's state of knowledge is relevant (respectively, the hearer's and the speaker's) (Tenny and Speas 2004). Given the many parallelisms between the nominal and the clausal domain, it might well be that speech participants are also represented in the extended noun phrase. If this proves right, it may then be that the strong definite article and the specificity marker occupy the same syntactic position. The difference would then reduce to the syntactic representation of the speech participants. I leave these issues for future research.

we would avoid the redundancy in the denotation of the strong article, as given in (15b). This is illustrated in (22), where the weak article moves from Def⁰ to Specif⁰ to form a specific definite. I assume that the weak article has clitic-like properties which force its movement to Specif⁰, as in (15a). On the nonspecific reading, because of these same properties, the weak article incorporates into prepositions, as in (15b).



To sum up, in this section I build upon I&P’s analysis and argue that that specificity and definiteness are encoded by two distinct functional heads, respectively Specif⁰ and Def⁰. Therefore, definite noun phrases have the structure represented in (23).



The difference between specific and nonspecific definites lies in the presence/absence of SpecifP. When present, it licenses movement to clausal Spec,TopP, either overtly or covertly. The availability of distinct projections predicts that some languages may mark definiteness and specificity with distinct morphemes. I shall argue below that this prediction is borne out in MC, as evidenced by relativized noun phrases, but let us first have a look at previous accounts of MC simplex definites.

2.3 The syntax and semantics of MC definite noun phrases

In this section I discuss previous studies of MC definite noun phrases and show that the claim that LA is only a specificity marker is too strong. I then propose an analysis based on the version of the Split-DP hypothesis sketched above.

2.3.1 LA is not a marker of specificity

As previously mentioned, MC possesses a definite article LA, which has two main properties at the superficial level. First, it is subject to phonologically conditioned allomorphy and may thus be realized as either *la*, *lan*, *a*, or *an* depending on the preceding segment (Bernabé 1983:644-646). Secondly, in terms of word order, this article is preceded by the head noun and its modifiers. Both properties are illustrated in (24).

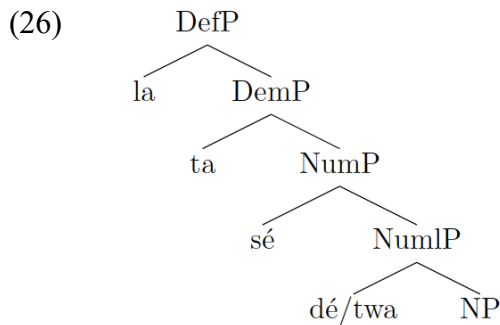
- (24) a. Jan ped boul **la/*lan/*a/*an**
John lose ball LA
'John lost the ball.'
- b. Jan adan chanm **lan/*la/*a/*an**
John in bedroom LA
'John is in the bedroom.'
- c. Jan anlè bato **a/*la/*lan/*an**
John on boat LA
'John is on the boat.'
- d. Jan asiz anlè ban **an/*la/*lan/*a**
John sit on bench LA
'John is sitting on the bench.'

Plural definites, exemplified in (25), involve the pronominal plural marker *sé* which precedes the noun and its modifiers.

- (25) Mark la ka palé ba sé gran moun **lan**
Mark there IMPF speak for PL big people LA
'Mark is speaking with the grown-ups.'

To account for these data, Gadelii (2007) and (Déprez 2007) assume a roughly similar

structure and derivation.¹⁸ The tree in (26) is adapted from their proposals.



The derivation of MC definite noun phrases, as posited by these authors, proceeds as in (28), which relates to the noun phrase in (27).

- (27) Sé dé gran moun ta **la**
 PL two big people DEM LA
 ‘These two grown-ups’

- (28) a. Step 1: Merge Numl⁰ with NP¹⁹
 [NumlP dé [NP gran moun]]

¹⁸ A minor difference between their analyses concerns the position of the plural marker *sé*. While Gadelii (2007) assumes that it heads NumP, Déprez (2007) claims that it is merged in Spec,NumP. She argues that this accounts for the fact that the plural marker must precede the noun and its modifiers. On her view, it is because Spec,NumP is already occupied that NP must remain in situ. In contrast, on Gadelii’s view, it might simply be that Num⁰ lacks an EPP feature, so that the NP is left in its base position. As this has no significant repercussion on the present proposal, I will simply assume with Gadelii that *sé* is merged under Num⁰.

Another difference concerns the position of DemP with respect to DefP. Gadelii suggests that DemP is merged above DefP, whereas Déprez proposes that it is merged below. I will adopt Déprez’s analysis, as it is better equipped to account for the crosslinguistic variation among French creoles.

As regards numerals, following Déprez (2007), I assume that they are simply merged as XPs in Spec,NumlP.

¹⁹ For the sake of exposition, the derivation is somewhat simplified insofar as I will treat both numerals and the plural marker as heads projecting respectively NumlP and NumP. These simplifications have no bearing on the issue under study.

- b. Step 2: Merge Num⁰ with NumIP
 [NumP sé [NumIP dé [NP gran moun]]]
- c. Step 3: Merge Dem⁰ with NumP
 [DemP ta [NumP sé [NumIP dé [NP gran moun]]]]
- d. Step 4: Move NumP to Spec, DemP
 [DemP [NumP sé [NumIP dé [NP gran moun]]] [Dem' ta t_{NumP}]]
- e. Step 5: Merge Def⁰ with DemP
 [DefP la [DemP [NumP sé [NumIP dé [NP gran moun]]] [Dem' ta t_{NumP}]]]
- f. Step 6: Move DemP to Spec, DefP
 [DefP [DemP [NumP sé [NumIP dé [NP gran moun]]] [Dem' ta t_{NumP}]] [Def' la t_{DemP}]]

Note, however, that some of these steps are optional in the sense that they depend upon the presence in the numeration of the relevant lexical items. For instance, if the numeration does not include any numeral, I assume that NumP simply merges with NP. Likewise, in the absence of a demonstrative, I postulate that Def⁰ merges with NumP and that this is followed by the internal merger of NumP in Spec, DefP. Crucially, the reader will have noticed that the structure under discussion contains a single position for the definite article and that this contrasts with the Split-DP analysis of French definite noun phrases introduced in section 2.2.3. One may thus legitimately wonder whether the latter proposal applies to MC as well. As a first step toward answering this question, one should determine whether the semantic contrasts observed in French also obtain in MC. If it turns out to be so, there may then be reason to extend the Split-DP hypothesis to this language.

In previous analyses of MC definite noun phrases (Damoiseau 1999, 2012; Bernabé 2003), LA is often described as a marker of ‘specificity’. In support of this view, Damoiseau (2012a) claims that the felicitous use of the definite article LA is subject to either one of the following two conditions: (i) the referent of the definite noun phrase is identifiable in the context of utterance; or (ii) the referent has been introduced in previous discourse. In other words, Damoiseau suggests that the MC definite article is limited to deictic and anaphoric uses. A similar claim is made by Bernabé (2003:109). Prima facie, this appears to be true, as examples (29a) and (29b) illustrate deictic and anaphoric uses, respectively. In (29a), there has been no previous mention of either a car or a motorbike.

However, their contextual saliency licenses the use of a definite article. In (29b), on the other hand, it is the previous mention of a car and a motorbike in the first sentence, through indefinite noun phrases, which licenses the felicitous use of LA-marked noun phrases in the second sentence.

(29) a. Gadé! *Loto a* doublé *moto a*!
 look car LA overtake motorbike LA
 ‘Look! The car has overtaken the motorbike!’

(Adapted from Damoiseau (2012a:28))

b. Té ni an loto épi an moto anlè lotowout **la**. *Loto a*
 PST have a car and a motorbike on highway LA car LA
 doublé *moto a*.
 overtake motorbike LA
 ‘There were a car and a motorbike on the highway. The car overtook the motorbike.’

(Adapted from Damoiseau (1999:33))

Despite initial support from the above data, Damoiseau and Bernabé’s claim cannot resist deeper scrutiny. To begin with, LA-marked noun phrases are not restricted to deictic and anaphoric uses, and this is easily demonstrable. Consider (30), which exemplifies a larger situation use of a LA-marked noun phrase.

(30) Prèmié minis **la** fini démissioné
 prime minister LA end resign
 ‘The Prime Minister has just resigned.’

Here, the definite noun phrase is perfectly fine even if the Prime Minister is not present in the immediate context of utterance. In addition, (30) does not require previous mention of the said Prime Minister. In fact, the data presented thus far appears to suggest that MC resorts to a single form to cover uses which German splits between its strong and its weak definite articles (Schwarz 2009). This claim finds support in the following facts. First, in

line with the German weak article, LA-marked NPs are compatible with deictic uses (which we may equate with Hawkins's (1978) immediate situation uses), as well as larger situation uses. Secondly, on par with the German strong article, LA is licensed in anaphoric uses. This would lead to the conclusion that the MC definite article is subject to both the uniqueness and familiarity conditions. This, in turn, rightly predicts that LA-marking should occur in the two types of bridging uses discussed in section 2.2.1, viz. part-whole relation and producer relation uses.

The first half of this prediction is validated by examples such as (31) which involve part-whole relations.

- (31) Man achté *an nouvo loto*, mé ni an tjak épi *anbréyaj la*
 1SG buy a new car but have a problem with clutch LA
 'I bought a new car, but something is off with the clutch.'

Although the referent of *anbréyaj la* 'the clutch' has not been introduced in previous discourse, the use of a definite noun phrase is licensed by the earlier mention of the car of which the clutch is a part. This is, however, subject to a uniqueness requirement, as shown in (32).

- (32) #Man achté *an nouvo loto*, mé ni an tjak épi *woul la*
 1SG buy a new car but have a problem with wheel LA
 'I bought a new car, but something is off with the wheel.'

The infelicity of (32) follows from the common world knowledge that cars have at least four wheels. There is thus ample evidence that, on par with German weak-article definites, MC definite noun phrases are subject to a uniqueness condition.²⁰ Let us now turn to the second half of our prediction.

Here again, the expectation is met. Example (33) shows unambiguously that bridging uses which involve producer relations license LA-marked noun phrases are

²⁰ Of course, this uniqueness requirement may be overridden when anaphoricity is involved, as observed in the case of the German strong article (Schwarz 2009).

perfectly fine.

- (33) Fred té ka palé di *an liv entérésan* adan kouw li. I
Fred PST IMPF speak of a book interesting in class 3SG 3SG
bon kanmarad épi otè *a*
good friend with author LA
'Fred was discussing an interesting book in his class. He is friends with the
author.'

We may then take (33) as evidence that LA-marked noun phrases share the semantics of the German strong-article definites, and that they may thus be subject to the familiarity condition.

Thus, contra both Bernabé (2003) and Damoiseau (2012a, 1999), we can clearly establish that LA-marked noun phrases are not restricted to anaphoric and deictic uses. However, while the evidence produced by these authors does not in itself establish that LA marks specificity, the substance of this claim should not be dismissed out of hand.²¹ Let us then check whether LA does qualify as a marker of specificity in the sense adopted here. That is, given Ionin (2006) and the remarks in fn. 5, is it true that all LA-marked noun phrases refer to an entity which the speaker has in mind? Let us now review some of the facts which, I believe, militate against the view that LA marks specificity.

The first piece of evidence comes from Zribi-Hertz & Jean-Louis' (2014) (henceforth Z&J) observation that LA-marked noun phrases may receive type readings. This is illustrated in (34), where the definite noun phrase *lion-an* 'the lion' is ambiguous between a token and a type construal. On the first reading, the noun phrase refers to a particular lion. On the second reading, on the other hand, it refers instead to lions as a species.

²¹ Unfortunately, neither Bernabé (2003) nor Damoiseau (2012a, 1999) provide an explicit definition of what they take specificity to mean.

- (34) *Lion an ka gwondé lè i pran lodè manjé*
 lion LA IMPF growl when 3SG take smell food
 ‘The lion growls when it smells food.’
 (The aforementioned lion OR the lion species of our world.)
 (Adapted from Z&J’s (9a).)

To account for the availability of a type reading, Z&J argue that LA is endowed with a locative feature whose effect is that the referent of a LA-marked noun phrase must be spatially anchored. This anchoring, they claim, may be provided by the discourse situation or the context. On Z&J’s view, when a type reading obtains, as in (34), anchoring is relative to the world of reference, rather than either the context of utterance or all possible worlds. Unfortunately, Z&J do not provide an explicit account of the mechanisms which affect domain restriction. That is, how do we determine whether the NP refers to a subset of all the entities endowed with the property that it denotes or, rather, to all such entities in all possible worlds? Let us suppose then that this may be achieved through a situation pronoun as proposed in Schwarz’s (2009) analysis of the German weak definite article. The difference between the two readings of (34) may then reduce to how this pronoun is bound. We may then assume that the type reading obtains when this pronoun is bound by a covert Gen(ericity) operator (Krifka et al. 1995). The token reading would, for its part, obtain when the pronoun is either bound through existential closure (Diesing and Jelinek 1995) or receives its value from the assignment function, which can be reasonably be assumed to be relative to the context of utterance. There may then be some merit to Z&J’s claim.²² But

²² In fairness to Z&J, I must mention their observation that the availability of type readings depends on the presence of overt tense-aspect-mood (TAM) marking. This generalization is essentially right, but it may need some refinement to satisfy descriptive adequacy. As a contribution toward this aim, I would like to mention the following two restrictions. First, Z&J’s generalization should probably be limited to stage-level predicates. As shown in (i), individual-level predicates license type readings even in the absence of overt TAM marking. In fact, (i) does not even license a token reading at all. Secondly, (ii) shows that not all TAM markers can license type readings. It appears that only the imperfective marker *ka* can do so, and that the anterior marker *té* disallows type readings.

this does not entail in any way that LA-marked noun phrases are necessarily specific.

In fact, such noun phrases may even receive kind readings, against Z&J's (275) claim that they "cannot denote intensional kinds pertaining to all possible worlds." This is illustrated in (35).

- (35) a. Sé Bell ki envanté tɛlɛfɔ̀n **lan**
sé Bell COMP invent telephone LA
'It is Bell who invented the telephone.'
- b. Balèn blé a ka vini ra
whale blue LA IMPF come rare
'Blue whales are getting rare.'

The generic reading of (35a,b) need not be associated with a Gen operator, since both sentences involve kind-level predicates (Carlson 1977; Krifka et al. 1995). I take this as evidence that LA-marked noun phrases are compatible with generic readings;²³ therefore it

(i) Lè lion **an** tou piti, i enmen jwé.
when lion LA all small it like play
'When the lion is still a cub, it likes to play.'

(ii) Lion **an** té ka gwondé lé swè
lion LA ANT IMPF growl DET evening
'The lion used to growl in the evening.'

Further exploration of this issue must be left for future work.

²³ It should be noted that bare nouns may also denote kinds in MC. In fact, in cases such as (i), they alone can do so.

(i) Chien(***an**) pa enmen chat (***la**)
dog LA NEG like cat LA
'Dogs do not like cats.'

cannot be maintained that LA is necessarily a marker of specificity (at least, in the variety described here).

Moreover, the MC definite article can be felicitously used to form weak definites.²⁴ This is illustrated in (36), which is ambiguous between a specific and a nonspecific reading. On the specific reading, the speaker refers to a particular train which he took to go to Paris. On the weak nonspecific reading, he has no particular train in mind; instead, he refers to an event of train-taking.

- (36) Nou pran tren **an** pou alé Pari
 1PL take train LA for go Paris
 ‘We took the train to go to Paris.’

I take this as yet another blow against the view that LA unambiguously encodes specificity.

Finally, consider the fact that LA-marked noun phrases may be ambiguous between a referential/specific and an attributive interpretation in the sense of Donnellan (1966). This is exemplified by (37).

- (37) Prézidan **an** fou an mitan tet
 president LA mad in middle head
 ‘The president is insane.’

On the specific reading, the speaker has a particular individual in mind, and the truth value of (37) depends on whether this individual is insane or not, regardless of whether the speaker is right or wrong in his belief that this individual is the president. On the other hand, the attributive reading entails that (37) can receive a truth value only if there is a unique individual who matches the description of the NP, i.e. there must be a unique

Therefore, the compatibility of kind readings with LA is not freely available. While further research is required to determine the licensing conditions to which these readings are subject, facts such as (34) are sufficient to establish that LA-marked noun phrases may denote kinds.

²⁴ Here again, I refer to weak definites as defined by Poesio (1994) and Carlson et al. (2006). These should be distinguished from Schwarz’s (2009) weak-article definites. The two classes are not coextensive, and it appears in fact that weak definites are a proper subset of weak-article definites (Schwarz 2014).

president. This ambiguity buttresses the view that LA does not necessarily mark specificity.

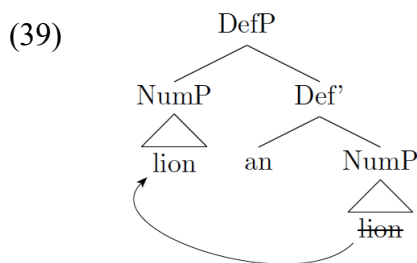
Thus, contra previous analyses, I have reached the conclusion that LA-marked noun phrases are not necessarily specific. In certain contexts, they may even be ambiguous between a specific and a nonspecific interpretation. This begs the question of whether the ambiguity is lexical or structural. On the first view, LA would be the culprit, as it would alternate between the semantics of Schwarz’s (2009) weak and strong articles. On the second view, it may be the case that MC definite noun phrases may be amenable to the version of the Split-DP hypothesis sketched in section 2.2.3. I will now explore the latter alternative.

2.3.2 A Split-DP analysis of MC simplex definite noun phrases (to be revised)

In this section, I extend the Split-DP analysis developed in section 2.2.3 to MC LA-marked noun phrases. Accordingly, I hold that the projection of a SpecifP layer above DefP is what separates specific from nonspecific readings. To illustrate, consider the derivation of the definite noun phrase *lion an* ‘the lion’, which may be ambiguous between a specific and a nonspecific reading, as discussed in the previous section.

Starting with the nonspecific reading, I propose the derivation represented in bracket form in (38), and in tree form in (39).

- (38) a. Step 1: Merge Def⁰ with NumP²⁵
 [DefP an [NumP lion]]
 b. Step 2: Move NumP to Spec,DefP
 [DefP [NumP lion] [Def⁰ an t_{NumP}]]

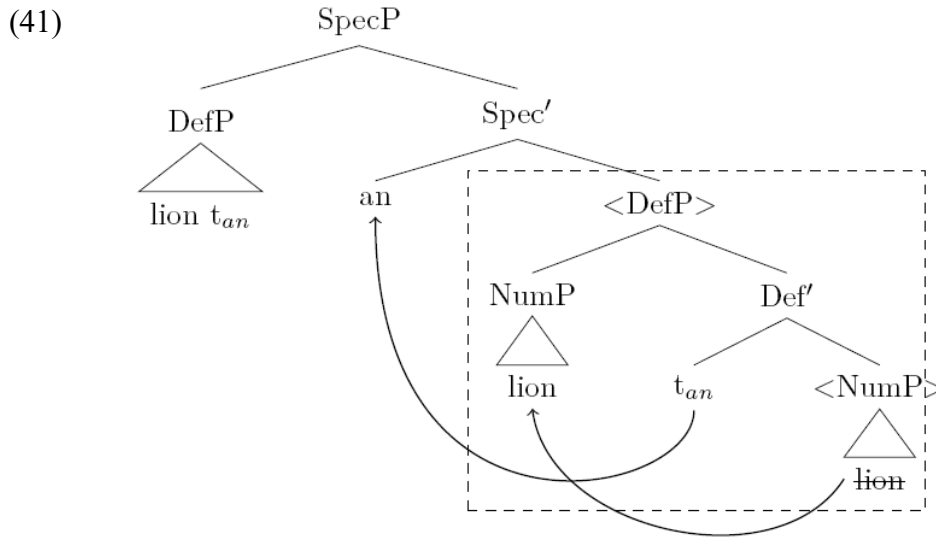


²⁵ In this representation I skip the irrelevant step of the merger of Num⁰ with NP.

Prima facie, the derivation is similar to the one proposed by Déprez (2007). However, I propose that the structure in (38) only applies to nonspecific definites. In contrast, specific definites involve the projection of an additional functional layer, SpecifP, which encodes specificity. On this view, many derivations are possible. For instance, one may hold that Specif⁰ is a null head. In this case, it may be that DefP moves to Spec,SpecifP or that it remains in situ, but it would also be just as plausible to assume that NumP undergoes Spec to Spec movement, i.e. from Spec,DefP to Spec,SpecifP. There are in fact many derivations which would all result in the attested word order. Instead of going through the tedious comparison of these various alternatives, I will focus on just one possibility inspired in large part by I&P's analysis of French definites. That is, starting from step 2 of (38)), I assume that Specif⁰ merges with DefP. Subsequently, the definite article is head-moved from its first-merge site in Def⁰ to Specif⁰. This step is meant to accommodate the fact that the definite article appears to encode simultaneously a [+definite] and a [+specific] feature. The final step in the proposed derivation involves remnant movement of DefP to Spec,SpecifP.²⁶ This derivation is represented in bracket form in (40) and in tree form in (41).

- (40) a. Step 3: Merge Specif⁰ with DefP
 [SpecifP \emptyset [DefP [NumP lion] [Def⁰ an t_{NumP}]]]
- b. Step 4: Move Def⁰ to Specif⁰
 [SpecifP an [DefP [NumP lion] [Def⁰ t_{an} t_{NumP}]]]
- c. Step 5: Move DefP to Spec,SpecifP
 [SpecifP [DefP [NumP lion] [Def⁰ t_{an} t_{NumP}]] [Specif⁰ an t_{DefP}]]

²⁶ An important question is what motivates the movements described here. I propose, somewhat tentatively, that Def⁰ and Specif⁰ both carry EPP features that trigger movement of their complements (NP and DefP, respectively) to their specifiers. The head movement of LA from Def⁰ to Specif⁰ is triggered by the fact that it lexicalizes the feature set [+Def; +Specif]. This proposal shall be revised below.



This analysis entails that the different uses of definite noun phrases in MC have the following structural correlates: (i) immediate and larger situation uses, kind-denoting uses, part-whole bridging uses are all DefPs; (ii) anaphoric uses and producer-relation bridging uses are SpecifPs. Additionally, the derivation proposed has the obvious benefit that it captures the fact that specific and nonspecific definite noun phrases are marked by the same morpheme, although they differ in their respective structures. This proposal will, however, be revised in section 2.5, as MC restrictive relative clauses provide evidence that Def⁰ and Specif⁰ are lexicalized by two distinct but homophonous morphemes.

2.4 Split-DP analysis of MC relative clauses

In this section I present the basic properties of MC restrictive relative clauses (RRCs), with a focus on the fact that they involve two occurrences of LA. Previously unreported data show that the second occurrence is optional and that its presence/absence has interpretive effects mirroring the specific vs. nonspecific distinction. After motivating a Raising Analysis of MC RRCs, I propose an account of these constructions which incorporates the insights of both the Raising Analysis and the Split-DP Hypothesis developed in section 2.2.3. This leads to the conclusion that Def⁰ and Specif⁰ are lexicalized by two underlyingly homophonous but distinct morphemes.

2.4.1 MC relative clauses: data and properties

According to previous studies (Bernabé 1983, 2003; Damoiseau 1999, 2012a), the remarkable characteristic of MC RRCs is that they feature two occurrences of the definite article LA – (i) one which immediately follows the head noun, and which I shall henceforth refer to as the *postnominal determiner*, and (ii) another which follows the RRC, which will henceforth be referred to as the *string-final determiner*. MC RRCs are then as NP LA RC LA strings, as illustrated in (42).

- (42) liv **la** Mari matjé **a**
book LA Mary write LA
‘The book that Mary wrote’

The implicit assumption seems to be that both occurrences of the determiner are obligatory, since examples presented in the literature invariably feature two occurrences of LA. It shall shortly be shown that this postulate is unfounded (at least in certain dialects),²⁷ but let us

²⁷ The informants I interviewed all shared my intuitions. However, there was a rather great deal of variation in the responses of the online survey I conducted. This, I believe, may be largely due to the subtlety of the judgments requested, as they involved *de re* vs. *de dicto* distinctions. But I believe that more fundamental factors are also at play. Some of these may be sociolinguistic. Bernabé (2015) argues that a process of language shift is underway: younger speakers are more likely to have French as a L1 (March 1996). Whether this entails that MC is relegated to L2 status is, however, not quite so clear. Younger speakers may simply have two L1s. In any case, most MC speakers are also fluent speakers of French, and it is quite likely that this produces interferences (Bellonie and Pustka 2018), which may have tainted the results of the survey.

Another explanation, kindly suggested by Anne Zribi-Hertz (p.c.), is that there may in fact be two coexisting grammars. In the first grammar (G1), the one described in Bernabé (1983), it would appear that string-final LA is obligatory, but semantically vacuous. In the second grammar (G2), the one I describe here, it is optional, but contentful. These two grammars also diverge with respect to the semantics of the definite article. In G1, LA-marked noun phrases must comply with a specificity requirement, while this constraint is not operative in G2. This suggests that G2 might be a later development, as it would simply be an instantiation of a tendency observed in other languages – specificity markers often evolve into definiteness markers. On the assumption that this evolution is currently underway, the root cause of the observed variation would be that not all speakers have fully transitioned from G1 to G2.

first see how previous studies have accounted for determiner doubling in MC RRCs.

Bernabé (2003) illustrates a first school of thought which holds that the string-final determiner is a ‘copy’²⁸ of postnominal LA and that its sole function is to separate the RRC from the rest of the sentence.²⁹ However, Bernabé is not quite clear as to which position the string-final determiner occupies, but, crucially, he assumes that string-final LA makes no semantic contribution to the interpretation of the relativized noun phrase.

Damoiseau (1999), on the other hand, claims that the string-final determiner scopes over the whole constituent formed by the head noun, the postnominal determiner, and the RRC. As mentioned earlier, he analyzes LA as a marker of specificity in simplex noun phrases. If this assumption carries over to the supposedly obligatory string-final occurrence of LA, it is expected that MC relativized definite DPs should necessarily be specific, but, as we shall see below, this prediction is not borne out.

Contra these earlier studies, I would like to point out the previously undocumented fact that the string-final determiner is optional when it is in the scope of an intensional operator. This is illustrated in (43a) and (43b), where the relativized noun phrase is merged in the scope of the modal-like marker *ké*.³⁰

- (43) a. Man ké ba Mari kado a i mandé a
1SG WOLL give Mary gift LA 3SG ask LA
i. ‘I will give Mary the gift, whatever it is, that she asks for.’
ii. ‘I will give Mary the (aforementioned) gift that she asked for.’

In any case, it should be noted that a significant proportion of respondents (67.3 %) confirmed the optionality of the string-final definite determiner (although their grammar may not perfectly correspond to the one (G2) described in this paper). Therefore, the phenomenon is real, but it remains to be determined whether it is the product of internal change or language contact.

²⁸ This should not be conflated with Chomsky’s (1993) copy theory of movement.

²⁹ The idea that the string-final determiner may have a demarcative function is also found in Fattier (2000) w.r.t. HC.

³⁰ I assume that it is modal in the same vein as English *woll* (Abusch 1985)

- b. Man ké ba Mari kado a i mandé
 1SG WOLL give Mary gift LA 3SG ask
 ‘I will give Mary the gift, whatever it is, that she asks for.’

The presence/absence of the string-final determiner has interpretive effects. In its presence, as in (43a), the relativized noun phrase is ambiguous between a *de re* and a *de dicto* reading.³¹ On the *de re* reading, the noun phrase refers to a particular gift which Mary asked for at some time before utterance time (UT), and which the speaker has in mind. On this interpretation, the relativized noun phrase takes scope over the irrealis marker at LF. On the other hand, on the *de dicto* reading, neither the speaker, nor the hearer knows the identity of the gift. In fact, at UT, Mary has not even asked for any gift yet. Clearly, the relativized noun phrase must scope under the intensional operator at LF. The ambiguity of (43a) contrasts with the fact that (43b) is restricted to a *de dicto* reading. This strongly suggests that *de re* readings are licensed by string-final LA.

The latter statement is supported by the contrast in (44), where the intensional verb *chèché* ‘look for’ licenses the omission of string-final LA. As in (44b), the absence of this article disallows *de re* readings.

- (44) a. Tania ka chèché nonm lan ki las la
 Tania IMPF look.for man LA COMP tired LA
 i. ‘Tania is looking for the (specific) man who’s tired.’
 ii. ‘Tania is looking for the man, whoever he may be, who’s tired.’
- b. Tania ka chèché nonm lan ki las
 Tania IMPF look.for man LA COMP tired
 ‘Tania is looking for the man, whoever he may be, who’s tired.’

On the *de re* reading of (44a), Tania is looking for a particular man that the speaker has in

³¹ Here again, there may be variation from one speaker to another. Some informants consider the presence of the string-final determiner to be compatible with both readings. Others show a marked preference for a *de re* interpretation in the presence of string-final LA.

mind, say Jones, and it so happens that this man is tired. In contrast, when the relativized noun phrase is interpreted as *de dicto*, Tania is looking for a man who matches the description of the RRC and whose identity is not known in advance. In contrast, (44b) is unambiguous – only the *de dicto* reading obtains.

Consider yet another example in support of the optionality of string-final LA and its effects on the interpretation of the relativized DP. In (45a), which features both occurrences of LA, the speaker refers either to a specific individual, say John, whose identity is already known, or to no particular individual but rather to anyone who will satisfy the property denoted by the relative clause, i.e. anyone who dares speak. But note that there is also a difference in the temporal interpretation of these two readings. On the *de re* reading, the speaker refers to an event that has already taken place – someone has already spoken. In contrast, on the *de dicto* reading, no one has spoken yet. As for (45b), which lacks the string-final of LA, only the *de dicto* reading is possible.

- (45) a. Moun **lan** ki palé a ké ni sa pou di
 person LA COMP speak LA WOLL have it for say
 i. ‘The person (say John) who spoke will have to pay for it.’
 ii. ‘The person, whoever it may be, who speaks will have to pay for it.’
- b. Moun **lan** ki palé ké ni sa pou di
 person LA COMP speak WOLL have it for say
 ‘The person, whoever it may be, who speaks will have to pay for it.’

This confirms that the optionality of string-final LA is conditioned on the presence of a scope-taking intensional operator.³² In this configuration, when string-final LA is

³² A JPCL reviewer comments that my analysis predicts that MC RRCs should also be compatible with generic readings. And this prediction is in fact borne out. In the absence of string-final LA, the relativized noun phrase in (ia) can receive a type reading. If, however, string-final LA is projected, this reading is out, and the relativized noun phrase must receive a token reading, as in (ib).

omitted, the relativized noun phrase receives an unambiguous *de dicto* reading, which I equate with nonspecificity. On the other hand, string-final LA, when it is present, licenses *de re* readings, which I assimilate with specificity.³³ This goes against Bernabé's (2003) claim that this occurrence of LA is semantically vacuous (at least in the dialect under study). This further invalidates the prediction that MC RRCs should necessarily be specific, a consequence of Damoiseau's (1999) assumptions.

In light of these facts, I propose a Split-DP account of MC RRCs. Alexiadou (2014) argues that determiner doubling, when it is associated with interpretive effects, should be analyzed as involving distinct functional heads making distinct contributions to semantic interpretation. Therefore, I would like to suggest that postnominal LA lexicalizes *Def*⁰, while its string-final counterpart spells out *Specif*⁰. This proposal begs two questions. First, how does the derivation of MC RRCs account for determiner doubling and the attested word order? Second, how can we reconcile the fact that string-final LA encodes specificity with the fact that its presence does not result in unambiguously specific noun phrases? The first question is answered in sections 2.4.2 and 2.4.3, where I motivate a Raising Analysis (see, a.o., Kayne 1994; Bianchi 1999; de Vries 2002) of MC RRCs. I then go through the

-
- (i) a. Lion **an** ki fen ka gwondé
lion DET COMP hungry IMPF growl
'The lion which is hungry grows.' (type reading)
- b. Lion **an** ki fen **an** ka gwondé
lion DET COMP hungry DET IMPF growl
'The lion which is hungry is growling.' (token reading)

Note that the two readings also diverge w.r.t. their aspectual interpretation. This receives a straightforward account if we assume that the type reading involves the presence of a covert Gen operator, which in fact licenses the omission of the string-final article in (ia).

³³ The syntactic approach to the *de re* vs. *de dicto* distinction reduces it to a matter of scope (Nelson 2022). The *de re* reading obtains when the DP has wide scope w.r.t. the relevant intensional operators. When it has narrow scope, the *de dicto* reading obtains instead. Now, recall I&P's proposal that specific DPs undergo movement to the left periphery, while nonspecific ones remain in situ. It then follows that specific DPs will scope over intensional operators and that nonspecific ones will scope under them. In view of these observations on scope, I consider the terms *de dicto* and nonspecific to be equivalent, as well as *de re* and specific.

technical implementation of this proposal. The second question is addressed in section 2.4.4, where I argue that RRCs which involve determiner doubling may be interpreted at two distinct positions at LF. Hence their ambiguity.

2.4.2 MC relative clauses: Motivating the Raising Analysis

According to de Vries (2002), there are basically four major competing accounts of RRCs – the Adjunct Analysis, the Matching Analysis, the Promotion Analysis, and the Raising Analysis.^{34,35} These last two analyses may be lumped together insofar as they both build upon the assumption that the head noun is first-merged inside the RRC before it is promoted to a higher position, either inside the RRC on the Raising Analysis, or outside it on the Promotion Analysis. Although this difference is not trivial, I shall simply refer to them collectively as the Raising Analysis. The evidence for this type of account usually involves the fact that the head noun must be reconstructed inside the RRC. It will now be shown that this readily applies to MC.

The first piece of evidence comes from Condition A effects. In (46), the anaphor (in italics) must be reconstructed inside the RRC to be bound by the embedded subject.

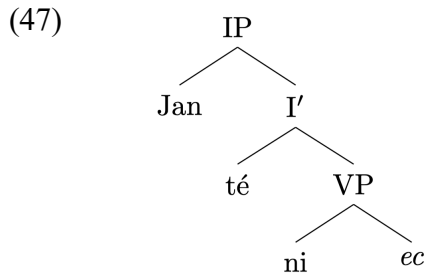
- (46) Man ped an foto *pwop kò 'y* Jan_i té ni an chanm li
 1SG lose a photo own body 3SG John PST have in room 3SG
 ‘I lost a picture of himself that John had in his room.’

In its surface position, the anaphor *pwop kò 'y* ‘himself’ is outside the c-command domain of its only possible binder, *Jan*. Given that the latter occupies the subject position of the RRC, it follows that the DP containing the anaphor, *an foto pwop kò 'y* must be

³⁴ The reader may also turn to Bianchi (2002a, 2002b) for a review of these analyses.

³⁵ It should be noted that some proponents of the Raising Analysis (a.o. Áfarli 1994; Sauerland 2000; Bhatt 2002) have argued that a unified account of restrictive relative clauses is not possible and that the Raising Analysis cannot by itself account for all the facts. For these authors, the Raising Analysis should coexist alongside the Matching Analysis. In contrast, other authors (Henderson 2007; Donati and Cecchetto 2011; Sportiche 2017) hold the view that the Raising Analysis can adequately derive all relative clauses, although the technical solutions they propose to reach this goal are not identical.

reconstructed in the object position of the RRC. In this position, in accordance with Condition A, it is adequately bound. A simplified tree representation of these facts is offered in (47), where *ec* stands for the position in which the anaphor must be interpreted. I take these Condition A-related reconstruction effects as a first indication that the Raising Analysis may apply to MC.



This view is reinforced by relativized nominal predicates. Vergnaud (1974:63-68) notes that the phi-features of French relativized nominal predicates must match those of both the matrix and the embedded subject. Hence the following contrasts:

- (48) a. Jean n'est pas le comédien que son père était.
 'John is not the actor that his father was.'
- b. *Marie n'est pas la comédienne que son père était.
 'Mary is not the actress that her father was.'
- c. *Marie n'est pas le comédien que son père était.
 'Mary is not the actor that her father was.'

Only (48a) is well-formed, as the nominal predicate matches the [+masculine] feature of both the matrix subject (*Jean*) and the embedded subject (*son père* 'his father'). On the other hand, (48b) and (48c) are ill-formed on the grounds that the phi-features of the nominal predicate clash with those of either the matrix or the embedded subject. A similar argument can be made in MC. While the language lacks grammatical gender, natural gender may be marked morphologically. For instance, *chantè* 'singer' denotes male singers in contrast with *chantèz* 'songstress' which denotes female singers. Thus, only (49a) is

acceptable, as both the matrix and embedded subject agree with the nominal predicate. This does not obtain in either (49b) or (49c), as the matrix and the embedded subjects do not share the same gender feature.

- (49) a. Jan po ko chantè **a** ki papa 'y té yé
 John NEG yet singer LA comp father 3SG PST COP
 'John isn't yet the singer that his father was.'
- b. *Mari po ko chantèz **la** ki papa 'y té yé
 Mary NEG yet songstress LA COMP father 3SG PST COP
 'Mary isn't yet the songstress that her father was.'
- c. *Mari po ko chantè **a** ki papa 'y té yé
 Mary NEG yet singer LA COMP father 3SG PST COP
 'Mary isn't yet the singer that her father was.'

Note that the absence of string-final LA in (49) strengthens the hypothesis that this article encodes specificity. The head noun, being a nominal predicate, is unsurprisingly incompatible with specificity. In any case, the dataset in (49) provides solid evidence for the application of the Raising Analysis to MC.

As a final argument, consider Schachter's (1973) remark that the relativized objects of idiomatic chunks must be reconstructed inside the RRC for proper licensing. By way of illustration, consider the idiomatic chunk *fè éfò* 'make an effort'. It is shown in (50b) that *éfò* 'effort' must be licensed as the object of *fè* 'make'. This requirement is satisfied in (50a) only if we assume that the head noun is first-merged as the object of the embedded predicate.

- (50) a. Man fiè di éfò **a** Mari fè **a**
 1SG proud of effort LA Mary make LA
 'I'm proud of the effort that Mary made.'

- b. *Man fiè di éfò a
 1SG proud of effort LA
 ‘I’m proud of the effort.’

Overall, the facts presented in this section lend support to the Raising Analysis of MC RRCs. The next section provides a technical implementation of this hypothesis.

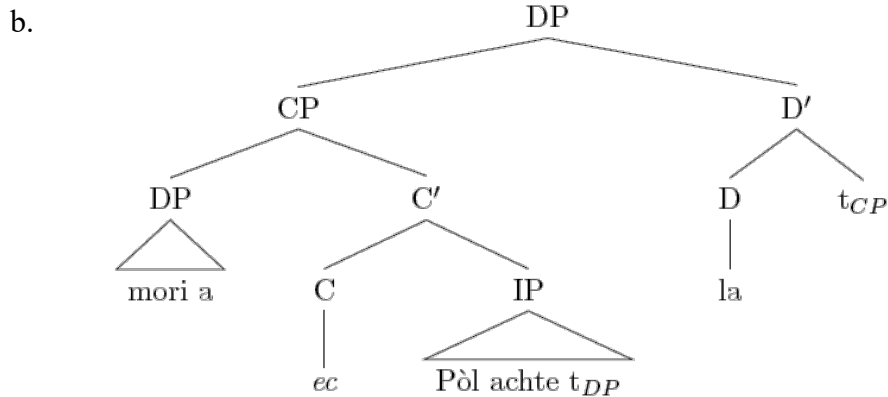
2.4.3 Deriving MC relative clauses: Bringing the Split-DP Hypothesis into play

Previous studies of MC RRCs (Bernabé 2003, 1983; Damoiseau 2012a, 1999) are not explicit about their derivation. I shall thus turn to HC where RRCs may also surface as NP LA RC LA strings.³⁶ I shall assess whether Zribi-Hertz & Glaude’s (2007) (henceforth Z&G) proposal can be extended to MC. What makes their study particularly interesting is that they too apply the Raising Analysis to HC RRCs. While Kayne (1994) suggests that the raised constituent is an NP, Z&G claim that, in HC, it is a DP headed by postnominal LA. This constituent raises from its base position inside the RRC to Spec,CP. Meanwhile, string-final LA selects the RRC as its complement. On this analysis, then, the postnominal determiner is merged inside the RRC, and the string-final determiner outside it. Departing slightly from Z&G’s original representation,³⁷ I will assume that the RRC moves to the Spec of string-final LA. Therefore, the relativized noun phrase in (51a) is associated with structure (51b).

- (51) a. Mori a Pòl achte a
 codfish LA Paul bought LA
 ‘The codfish that Paul bought’

³⁶ Other word orders are possible as well. The reader may turn to Zribi-Hertz and Glaude (2007) and Wespel (2008) for an extended discussion of HC relative clauses.

³⁷ Although Z&G represent HC DPs as head-final, they only do so for the sake of exposition. In line with Kayne’s (1994) Linear Correspondence Axiom, they hold that HC is consistently head-initial.



This proposal has the obvious benefit of deriving the appropriate word order, but it faces critical challenges in (at least) MC. There are at least two pieces of evidence against the hypothesis that the moved constituent is a definite noun phrase headed by postnominal LA.

First, Browning (1987:129-131) argues that the trace position of RRCs must be indefinite. It is well-known that existential constructions give rise to definiteness effects (Milsark 1977, 1974). Hence the ungrammaticality of (52a). The well-formedness of (52b) leads us to conclude that the trace position must be occupied by an indefinite noun phrase.

- (52) a. *Té ni sé nonm **lan** adan jaden **an**
 PST have PL man LA in garden LA
 Lit. ‘There were the men in the garden.’

- b. Sé nonm **lan** ki té ni *t* adan jaden **an** té diplomat
 PL man LA COMP PST have in garden LA PST diplomat
 ‘The men that there were in the garden were diplomats.’

This militates against the view that the raised constituent is a definite DP.

The second and final argument concerns relativized objects of idiomatic chunks (Schachter 1973). As shown in (53a), the previously mentioned idiomatic chunk *fê éfò* ‘make efforts’ is incompatible with definite objects. It follows that the postnominal determiner in (53b) is not base-generated inside the RRC.

- (53) a. Mari ka fè éfò (*a)
 Mary IMPF make effort LA
 ‘Mary is making efforts.’
- b. Man fiè di éfò a Mari ka fè t a
 1SG proud of effort LA Mary IMPF make LA
 ‘I am proud of the efforts that Mary is making.’

It is then quite clear that the constituent which moves to Spec,CP is not a definite noun phrase. Instead, I propose that it is an NP (or at least some constituent smaller than a DP). I further hold that postnominal LA is merged under Def⁰ outside the RRC and that it, therefore, takes the RRC as its complement.

As for string-final LA, I share Z&G’s assumption that it too is base-generated outside the RRC.³⁸ In light of the interpretive effects described in section 2.4.1, I propose,

³⁸ A JPCL reviewer suggests that string-final LA may be a clausal determiner in the vein of the one found in HC (Lefebvre 1998, 1992; Larson 2003). There are at least two arguments against this hypothesis. The first one concerns the morphological realization of this article. In section 3.1, I reported that nominal LA has four phonologically conditioned allomorphs (*la*, *lan*, *a*, and *an*). Data from Duzerol (2019) suggest that string-final LA has only three allomorphs – *la*, *a*, and *an*. This is illustrated in (i).

- (i) a. Mè Fodwans lan/??la
 mayor Fort-de-France LA
 ‘The mayor of Fort-de-France’
- b. Fanm lan ki ka rété tou pré Fodwans la/??lan
 woman LA COMP IMPF stay all near F-d-F LA
 ‘The woman who lives very close to Fort-de-France’

The limited range of string-final LA’s allomorphy is congruent with the view that it is merged outside the RRC and that it is structurally ‘remote’ from the string-adjacent previous word.

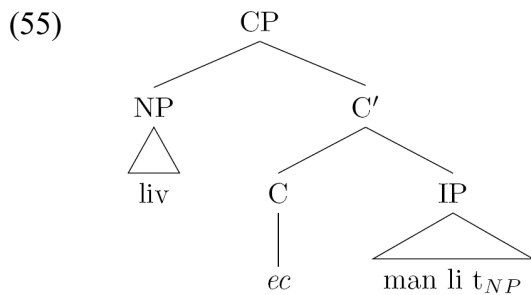
A second argument concerns conjoined RRCs. If string-final LA were a clausal determiner, it is predicted that each conjunct should be able to project its own clausal determiner, but this prediction is not borne out. There can only be a single occurrence of this article and it must appear after the second conjunct. These facts are illustrated in (ii).

however, that it is merged under Specif^0 , a position from which it scopes over the whole RRC. With both occurrences of LA base-generated outside the RRC, it remains to be determined how MC RRCs are derived.

To answer this question, let us take (54) as our case study.

- (54) Liv **la** man li **a**
 book LA 1SG read LA
 ‘The book that I (have) read’

The first step, illustrated in (55), is the internal merger of the head NP in Spec,CP .³⁹



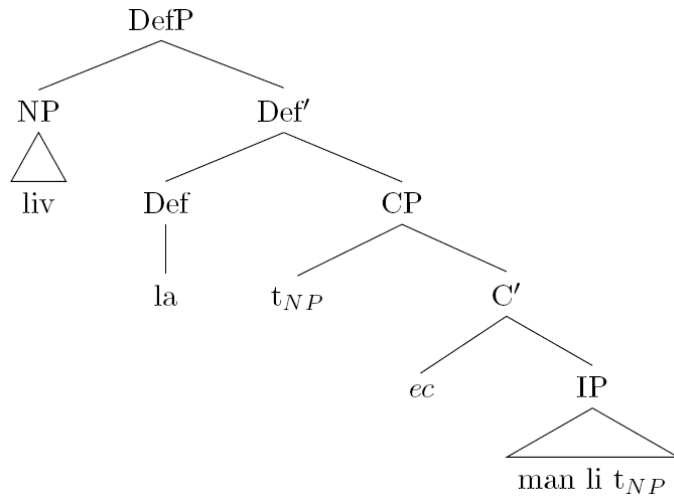
Next, Def^0 merges with the RRC. The head NP then raises to Spec,DefP . This is motivated, I conjecture, by the fact that Def^0 probes its c-commanding domain for a constituent with a nominal feature and that this constituent must be moved to its Spec . In our case study, this happens to the head NP, which must then undergo XP movement. This is shown in (56).

-
- (i) Boug **la** ki té ka palé **(*a)** épi ki té ka manti ***(a)**
 man LA COMP PST IMPF talk LA and COMP PST IMPF lie LA
 ‘The man who was talking and who was lying’

These facts argue against the analysis of string-final LA as a clausal determiner.

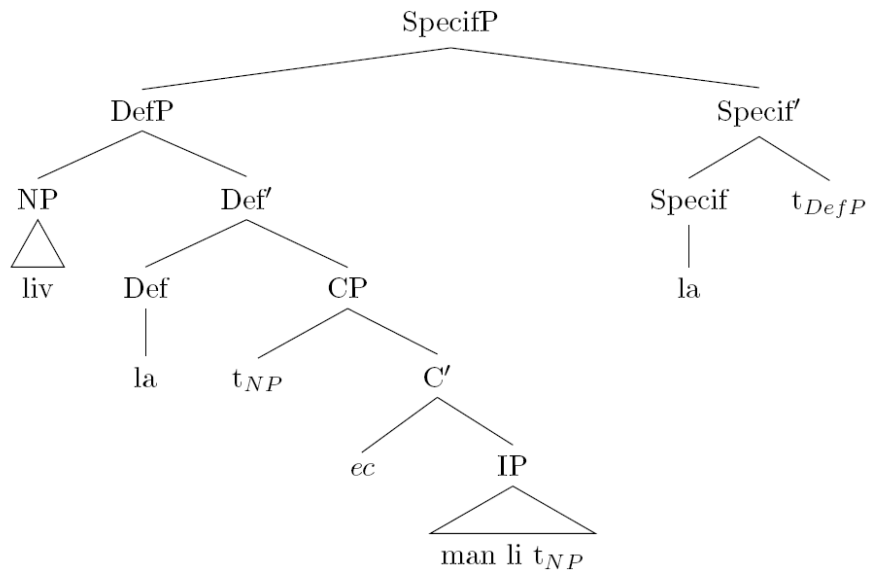
³⁹ One may legitimately wonder what triggers this first operation. Unfortunately, I do not have any satisfactory answer to this question. As noted by Sportiche (2017), this is a general problem of which relatives are but an illustration.

(56)



The next two steps are illustrated in (57). First, Specif^0 merges with DefP . Finally, DefP is moved to Spec,SpecifP . Those last two steps are omitted in case of nonspecific readings.

(57)



To sum up, this section has established that both occurrences of LA are merged outside the RRC. Based on the interpretive effects described in the previous section, it has been argued that the postnominal occurrence of LA lexicalizes Def^0 and that the string-final occurrence spells out Specif^0 . Therefore, the posited structure involves two distinct heads

which happen to be spelled out by homophonous morphemes. I have thus proposed an analysis of MC RRCs which combines insights from the Raising Analysis and the Split-DP Hypothesis. In the next section, I shall tackle an outstanding challenge, viz. the fact that the string-final occurrence of LA is apparently compatible with a *de dicto* (i.e. nonspecific) construal.

2.4.4 Dealing with the ‘de dicto’ reading of the NP LA RC LA string

I have proposed that the string-final occurrence LA marks specificity. This predicts that it should trigger unambiguous *de re* readings, but this prediction is apparently not borne out. Consider (43a), reproduced here as (58), which is ambiguous between a specific and a nonspecific reading.

- (58) Man ké ba Mari kado a i mandé a
 1SG WOLL give Mary gift LA 3SG ask LA
 i. ‘I will give Mary the gift, whatever it is, that she asks for.’
 ii. ‘I will give Mary the (aforementioned) gift that she asked for.’

I argue that the source of this apparent inconsistency lies in the temporal and aspectual interpretation of the RRC. On the *de re* reading, the event denoted by the relative is interpreted as taking place before utterance time (UT). In contrast, on the *de dicto* reading, this event is construed as taking place after UT. Following Stowell (2007), I assume that the temporal and aspectual interpretation of a RRC depends on its position at LF. The two readings of the RRC in (58) suggest that it may then occupy two distinct LF positions – one in which it scopes under the matrix predicate, and another in which it takes scope over it. What are those two positions?

The answer lies in I&P’s proposal that specific definite noun phrases must sit in Spec,TopP at LF. I assume that this straightforwardly extends to relativized noun phrases. Accordingly, when the RRC undergoes covert movement to this position, it scopes over the matrix predicate. It is then anchored to UT. This corresponds with the *de re* reading of (58). I propose that, in contrast, the *de dicto* construal simply results from the RRC being interpreted in its base position, i.e. in the scope of the matrix predicate. It is then temporally

anchored to matrix event time. While this proposal would account for the difference in temporal and aspectual interpretation, it needs to be reconciled with I&P's assumption that covert movement to Spec,TopP is obligatory for specific noun phrases. I postulate that this can be achieved if we dissociate the temporal interpretation of the RRC from other aspects of its interpretation.

This viewpoint finds support in Stowell's (2007) analysis of the so-called double access reading of English PRESENT UNDER PAST embedded clauses. This is illustrated in (59) which can only be true if it is the case that Terry was in Boston both at the time of Sam's utterance and at UT.

- (59) Sam said [that Terry is in Boston].
(Stowell 2007:461)

Stowell takes this as an indication that the embedded clause is interpreted simultaneously at two distinct LF positions. If his proposal is on the right track, the fact that MC specific RRCs may be temporally interpreted either in situ or in Spec,TopP does not pose any significant problem. Nonspecific RRCs, in contrast, can only be interpreted in their base position since they lack the [+specific] feature which would license their LF movement to Spec,TopP. They are then necessarily interpreted as anchored to matrix event time.

In summary, the *de dicto* reading of specific RRCs is a product of the fact that they may be temporally interpreted in their base position. Therefore, I maintain the view that postnominal LA spells out Def⁰ and string-final LA Specif⁰. Despite their homophony, these two heads are distinct. Let us now revisit MC simplex definite noun phrases in light of these findings.

2.5 A Split-DP analysis of MC definite noun phrases: Redux

MC specific and nonspecific definite noun phrases are both marked by a single occurrence of LA. In section 2.3.2, I proposed that this results from Def⁰ head-moving to Specif⁰ in case the noun phrase receives a specific reading. On the other hand, in section 2.4.3, it was established that Def⁰ and Specif⁰ are spelled out by two distinct but homophonous morphemes in the case of relativized definites. There is thus no need to appeal to head

movement in the latter configuration. This state of affairs is obviously unsatisfactory, as a unified analysis would undeniably be preferable. Thankfully, this can be achieved, as it shall be shown below that Def⁰ and Specif⁰ are spelled out by distinct occurrences of LA in both simplex and relativized definites.

Nonspecific definites do not pose any significant challenge and the proposal sketched in section 2.3.2 requires no modification. Categorially, those noun phrases are DefPs. The string-final position of LA is the result of NumP moving to Spec,DefP. Therefore, on its nonspecific reading, the definite noun phrase *tren an* ‘the train’ has the structure in (60).

(60) [DefP [NumP tren] [Def⁰ LA t_{NumP}]]

As for the specific reading of *tren an* ‘the train’, given what has been shown above, I depart from my earlier proposal. I now hold that Specif⁰ is lexicalized by a second occurrence of LA and that its Spec hosts the internally merged DefP. This is illustrated in (61).

(61) [SpecifP [DefP [NumP tren] [Def⁰ LA t_{NumP}]] [Specif⁰ LA t_{DefP}]]

On this revised analysis, specific definites are expected to surface as NP LA LA strings, but this prediction is not borne out. As shown in (62), there can be no more than one occurrence of LA.

(62) Nou pran tren **an** (***an**) pou alé Pari
 3PL take train LA LA for go Paris
 ‘We took the (aforementioned) train to go to Paris.’

What is at stake, in fact, is simply a mismatch between the syntax and the surface realization of specific definites. That is, syntactically, both occurrences of LA are projected, but a PF rule prevents their overt realization. This constraint, the *DET DET filter, forces the deletion of all but one determiner in a string of adjacent homophonous determiners. Such a rule has been proposed for both HC (see, a.o. Lefebvre 1982.; Lefebvre & Massam 1988;

Lumsden 1989; Glaude 2012) and MC (Bernabé 1983:749). To see how this filter operates, let us consider its effect in MC possessive constructions.

In (63a), the possessor is a proper name. Given that MC proper names are incompatible with LA (Bernabé 1983:748), it is safe to conclude that the definite article scopes over the whole noun phrase in (63a). Hence the bracketing in (63b).

(63) a. Liv Jan **an**
 book John LA
 ‘John’s book’

b. [DP [liv [DP Jan]] **an**]

Interestingly, when the possessor is definite, as in (64), there can be only one occurrence of LA.

(64) Liv sé pwofésè **a** (***la**)
 book PL teacher LA LA
 ‘The teachers’ book’

In light of (63), this occurrence of LA seems to relate to the whole noun phrase, rather than just the possessor. However, as shown in (65), the plural marker *sé* is only compatible with LA-marked noun phrases.

(65) Sé pwofésè *(**a**)
 PL teacher LA
 ‘The teachers’

We may then hypothesize that the definite article in (64) relates to the possessor noun phrase, but this would contradict our earlier finding that the definite article in possessive constructions scopes over the whole noun phrase. To reconcile these facts, I assume the underlying presence of two occurrences of LA, one inside the possessor noun phrase and

the other which scopes over the whole construction.⁴⁰ I will posit that this second occurrence of the definite article is deleted by application of the *DET DET filter. Hence the representation in (66).

⁴⁰ A JPCL reviewer rightly notes that a consequence of my proposal is that the internal structure of both the possessum and possessor phrases should be more complex. If the possessum, for instance, is specific, it is predicted that it should in fact project two occurrences of the determiner. The same reasoning extends to the possessor phrase. We may then have as much as four string-adjacent occurrences of LA in the syntax, although only one of these is spelled out.

As the reviewer observes, this raises questions regarding the interpretation of possessives. There should be four possible combinations: (a) both the possessor and the possessum are specific; (b) both the possessor and the possessum are nonspecific; (c) the possessor is specific while the possessum is nonspecific; and (d) the possessor is nonspecific while the possessum is specific. The question then is, are all four combinations possible?

Consider the noun phrase *liv pwofèsè a* ‘the teacher’s book’. It is perfectly fine with reading (a). The speaker would then refer to the specific book of a specific teacher. The underlying bracketing would be as in (i), where each determiner is represented in its phonological form.

- (i) [[liv [pwofèsè LA LA]] LA LA]

On reading (b), the speaker would refer to a type of book especially written for teachers in general. The noun phrase would then have the structure in (ii).

- (ii) [[liv [pwofèsè LA]] LA]

On readings (c) and (d), the noun phrase would be bracketed as in (iii) and (iv), respectively.

- (iii) [[liv [pwofèsè LA LA]] LA]
(iv) [[liv [pwofèsè LA]] LA LA]

It is not quite clear to me whether these readings are actually available. What exactly is the nonspecific book of a specific teacher? And the specific book of a nonspecific teacher? For the sake of brevity, I must leave these (admittedly nontrivial) issues aside, as they do not affect the argument presented here: the overt realization of LA-marked noun phrases does not necessarily reflect the complexity of the underlying structure. In all cases, application of the *DET DET filter would delete all but one occurrence of the definite article.

(66) [DP [Liv [DP sé pwofésè a]] LA]

It should be noted that RRCs provide additional support for this PF rule. When the object of the embedded verb is definite, as in (67), the string-final occurrence of LA cannot be overtly realized.

(67) Jan jwenn nonm **lan** ki achté gita **a** (*LA)⁴¹
 John meet man LA COMP buy guitar LA LA
 ‘John met the man who bought the guitar.’

Here again, I posit that it is the effect of the *DET DET Filter. This PF rule provides a straightforward account for the fact that both specific and nonspecific definites involve a single overt occurrence of LA. Syntactically, however, both occurrences are projected and there is no need to posit that Def⁰ undergoes head movement to Specif⁰.

It should be further noted that certain varieties of HC allow NP LA LA strings (Fattier 2000:42), as shown in (68).

(68) Chat **la a**
 cat LA LA
 ‘The cat’

This evidences the fact that there is no *DET DET Filter in these dialects, or at the very least, a less stringent version of it (Lefebvre 1992). MC, on the other hand, allows no such variation. The *DET DET filter applies equally in all its dialects.

In conclusion, a unified analysis of simplex and relativized definites is possible. The difference between these two types of definites reduces to the absence/presence of overt material between the two occurrences of the LA. In RRCs, the presence of such material prevents the application of the *DET DET Filter, which accounts for determiner doubling in these constructions. Simplex specific definites, on the other hand, are subject to the *DET DET Filter; which forces the PF deletion of the occurrence of LA which

⁴¹ Replacing string-final LA by any of its allomorphs does not yield a grammatical sentence.

lexicalizes Specif⁰.

2.6 Conclusion

In this paper, I have established that the MC so-called definite article, LA, is ambiguous between specific and nonspecific readings, at least in certain uses. To account for this, I have suggested that MC definite noun phrases are amenable to a Split-DP analysis. Accordingly, I have proposed that the MC nominal left periphery comprises two functional heads: Def⁰ and Specif⁰. As suggested by their labels, these heads encode definiteness and specificity, respectively. SpecifP, the topmost layer, is projected only in case the noun phrase bears the [specific] feature. I have further argued that these two heads are spelled out by homophonous morphemes. The evidence for this claim comes from RRCs, where optional determiner doubling is dependent on whether the noun phrase is to receive a specific reading or not. A phonological rule, the so-called *DET DET filter, has been identified as the reason why determiner doubling never obtains in simplex specific definites. This paper thus provides evidence for an articulated left nominal periphery in the MC noun phrase.

At the cross-linguistic level, research has been mainly concerned with the left periphery of simplex noun phrases. The present study suggests that the DP layer above RRCs may be just as articulated. The validation of this hypothesis must be left for future work, however.

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Chapitre 3. An exploratory study of the syntax, semantics and pragmatics of Martinican Creole definite wh-questions

3.1 Introduction

Martinican Creole (MC) possesses two types of wh-questions. The first type, which I label indefinite wh-questions (IWQs), is illustrated in (1a). The second type, which I shall refer to as definite wh-questions (DWQs), is exemplified in (1b).¹

- (1) a. Ki moun ki jwenn Jan?
WH person COMP meet John?
'Who met John?'
- b. Ki moun ki jwenn Jan an?
WH person COMP meet John CD
'Who met John (given our shared knowledge that someone met John)?'

On a superficial level, the most obvious difference between these two types of questions is the presence in DWQs of a sentence-final clausal determiner, which, interestingly, is phonologically identical with the definite article. This, however, is not the only difference between DWQs and IWQs.

As reflected in the translations of (1a,b), DWQs are characterized by the additional property that they impose restrictions on the common ground. For a DWQ to be licensed, the common ground should include a certain proposition, which I shall refer to as an antecedent proposition. In (1b), that proposition is that there is a person *x* such that *x* met

¹ The list of glosses used in the paper includes the following: CD: clausal determiner, CL: noun class marker, COP: copula, COMP: complementizer, DEF: definite article, DET: determiner, IMPF: imperfective aspect, INDEF: indefinite article, PROX: proximal, WH: wh-word.

John. This property accounts for the fact that, contra IWQs, DWQs do not tolerate *nothing*-type answers as this would result in an inconsistent common ground. This property is also responsible for the fact that DWQs, in contrast with IWQs, cannot be uttered out of the blue.

As to the source of these various properties, I point to the obvious culprit: the clausal determiner. I argue that its similarity with the definite article extends beyond phonological resemblance. Indeed, I hold that both are the spell-out of a [+DEF] feature. The familiarity-based theory of definiteness (Heim 1982) thus accounts for most of the properties of both the definite article and the clausal determiner. Just as a definite noun phrase is (generally) used to refer to a previously established referent, DWQs are used to refer to previously established propositions. IWQs, on the other hand, are not subject to any such constraint. They can be used regardless of whether or not the common ground provides an antecedent proposition.

Yet another difference between these two types of *wh*-questions is that, unlike IWQs, DWQs are subject to the constraint that all overt noun phrases besides the *wh*-phrase must be definite. This definiteness constraint proceeds from the conjunction of the presence in the common ground of an antecedent proposition and the theory of information structure presented in Erteschik-Shir (2014). In a nutshell, all referents introduced through the antecedent proposition must be subsequently referred to through the use of a definite noun phrase.

The chapter is organized as follows. Section 3.2 provides the reader with some basic background on MC. Section 3.3 introduces the key notion of common ground, an essential ingredient of the analysis I propose. Section 3.4 describes DWQs and their main syntactic, semantic and syntactic properties. Section 3.5 then investigates the role of definiteness in these constructions and ties it to the presence of the clausal determiner. Section 3.6 offers an account of the definiteness constraints associated with DWQs. Section 3.7 considers whether DWQ-like questions are found in other languages. Finally, section 3.8 concludes the chapter.

3.2 Some background on Martinican Creole

MC is a French-lexifier creole spoken mostly in the island of Martinique, a French overseas territory located in the Caribbean between the islands of Dominica to the North and Saint Lucia to the south. It is also spoken outside of Martinique by a diaspora that is located for the most part in mainland France. An important point of note is that a large proportion, if not the majority, of Martinicans are bilingual speakers of MC and French (Bernabé 2009; Bellonie 2011). This has obvious consequences for the description and analysis of MC phenomena. Ideally, one would like to isolate MC from the influence of its lexifier, French. This is reflected in the fact that most research on MC aims at describing its basilectal variety (Bernabé 1983; Syea 2017). In fact, this predilection is prevalent in the study of creoles in general. This, however, is a tendency which I will abstain from in this chapter. I shall instead focus on describing and analyzing MC as it is spoken today by its bilingual speakers.²

Typologically, MC is a SVO language, where Tense-Aspect-Mood distinctions are encoded through preverbal particles. Neither verbs nor nouns bear inflectional morphology. These properties are illustrated in (2).

- (2) Jan té ka manjé dé bannann
 John PST IMPF eat two banana
 ‘John was eating a banana.’

This sentence conforms with MC’s canonical SVO word order. It further combines two preverbal particles – *té* and *ka*, which mark past tense and imperfective aspect, respectively. And the absence of inflectional morphology, either verbal or nominal, is observable on *manjé* ‘eat’ and *bannann* ‘banana’.

A full exploration of MC is obviously beyond the scope of this chapter and the interested reader should turn to Bernabé (1983) and Syea (2017) for in-depth descriptions of MC grammar. However, before closing this section, I would like to write a few words about the definite article *la*, as it shall be of crucial relevance to the analysis developed in

² See López (2020) for a novel way of analyzing creole continua and bilingualism in general.

the chapter.³ As regards its syntax, it should be noted that *la* appears in postnominal position. From a morphological standpoint, it has four phonologically conditioned allomorphs (*la*, *lan*, *a*, and *an*). These characteristics of the definite article are evidenced in (3).

- (3) Boug la manjé tout sé bannann lan
 guy DEF eat all PL banana DEF
 ‘The guy ate all the bananas.’

A common claim in the literature on the MC DP is that the definite article is in fact a marker of specificity (Damoiseau 1999, 2012a; Bernabé 2003; Déprez 2007; Gadelii 2007; Zribi-Hertz and Jean-Louis 2014). Although this statement is too strong (Térosier 2019), it finds some level of support in the fact that *la*-marked DPs are generally used to refer to familiar entities. For illustration, consider (4).

- (4) An nonm ek an fanm rantré. Fanm lan té ka palé
 INDEF man and INDEF woman come.in woman DEF PST IMPF speak
 swahili
 Swahili
 ‘A man and a woman came in. The woman was speaking Swahili.’

³ Given the in-depth study of that determiner found in the previous chapter, the parallel between the clausal determiner and the so-called definite article may be viewed as somewhat of an oversimplification. As a matter of fact, the Split-DP analysis of the MC DP sketched above suggests that, as regards its semantics, the clausal determiner found in MC DWQs is closer to *Specif* than to *Def* insofar as it relates to familiarity/anaphoricity, rather than uniqueness. I shall nonetheless refer to this clausal determiner as a marker of definiteness construed here in terms of familiarity/anaphoricity. This terminological choice is motivated by two considerations. First, the literature on definiteness is replete with references to the familiarity-based approach. Second, at this stage, it is not clear to me whether the Split-DP analysis of the MC DP extends to the level of the clause. I do not have any evidence that would indicate that the clausal determiner spells out two syntactic nodes, rather than a single one. I shall therefore treat it as the morphological exponent of a single head which may, to some extent, combine the semantics of the two heads found in the DP (see section 3.5.3).

The first sentence in (4) introduces the referent of the indefinite DP *an fanm* ‘a woman’. The subsequent reference to this entity in the second sentence requires the use of the definite DP *fanm lan* ‘the woman’. I will therefore adopt the view that *la*-marked NPs generally refer to familiar entities.

This concludes this brief overview of MC. To recap, MC is a French-lexifier creole. Most speakers are in fact French-MC bilinguals. This is a non-trivial issue, as it may be somewhat illusory to describe a MC grammar that is completely devoid of any French influence. With this caveat in mind, I have identified some of the defining properties of MC (canonical SVO word order, preverbal TMA marking, absence of inflectional morphology). Special attention was then drawn to the MC definite article *la*, which may be used to refer to familiar entities. The next section introduces some theoretical background that will prove useful in the study of MC DWQs, our construction of interest.

3.3 A few words on the common ground and presuppositions

The aim of this section is to make clear some of the theoretical assumptions that the present chapter relies on, notably the notions of common ground, as it provides the basis for the dynamic approach to semantics adopted here.

Stalnaker (1978, 2002) defines the common ground as the knowledge and assumptions shared by the discourse participants. We may then think of it as the set of propositions held to be true in common by the interlocutors. On the standard view that propositions are sets of possible worlds, we may then define the context set as the set of possible worlds in which all the propositions in the common ground are true. These two notions are key components of the context, which Roberts (2004:198) defines as the “structure of the information that is presupposed and/or conveyed by the interlocutors in the exchange.” It is also important to note that the context is dynamic in the sense that it will evolve as the exchange progresses.

The ultimate goal of the discourse participants is to reduce the context set to a unique world: the actual world (Roberts 1996, 2004). Each utterance may then be viewed as a move toward that end, with a distinction to be made between two types of moves: set-up and payoff moves (Carlson 1983). These two types of moves differ in the way they

affect the common ground, and thus the context set.

Let us first consider questions, which are typical set-up moves. Hamblin (1973) proposes that a question denotes a set of propositions, namely those propositions which are possible answers to it. A question therefore creates a partition of the possible worlds in the context set. This amounts to what Krifka (2008) labels common ground management. While the content of the common ground itself is not affected by a question, its structure is. Thus, set-up moves affect what subsequent moves may be, which will eventually affect the content of the common ground.

As for payoff moves, they are best illustrated by assertions. A typical assertion will introduce a proposition into the common ground, which will result in the elimination from the context set of all the possible worlds in which that proposition is not true. The context set will thus gradually shrink until it is reduced to a singleton set made up of the actual world.

Each utterance thus has the potential to affect the context. Hence, Heim's (1983) proposal that propositions may be construed as functions from context to context. Under this approach, the presuppositions which are triggered by a certain proposition can be viewed as the definedness conditions of that proposition. Crucially, the presupposition must be checked against the input context. By way of illustration, consider the definite description *the king of France*, which triggers the presupposition that there is a unique individual x such that x is the king of France. If this does not hold true in the input context, the definite description cannot be assigned a truth value.⁴ In other words, the common ground must include the presupposition for the definite description to be felicitous. This approach to presuppositions is the one I will adopt here, as it shall give me sufficient traction to account for the phenomena under study.

In summary, this section has introduced the notions of common ground and context set which will prove critical to my analysis. I have also opted for an approach to presuppositions according to which they must be checked against the input common ground. With these theoretical assumptions established, we may now take a look at the topic of interest: MC definite wh-question (DWQs).

⁴ I leave aside the issue of accommodation.

3.4 MC definite wh-questions

The present section presents the distinctive properties of MC DWQs. Section 3.4.1 provides the reader with basic data. Section 3.4.2 describes the semantics and pragmatics of this construction. Throughout, the reader's attention is drawn to the contrast between IWQs and DWQs.

3.4.1 Basic facts⁵

This section begins with a presentation of the main characteristic of MC DWQs, viz. the presence of a clausal determiner in clause-final position. It then explores two types of constraints to which they are subject: (i) constraints on extraction, and (ii) constraints on definiteness.⁶

3.4.1.1 *A defining characteristic: the presence of a clausal determiner*

MC distinguishes between (at least) two classes of wh-questions. The first class, illustrated in (5a), is made up of canonical wh-questions, which I shall refer to as IWQs. There is not much that stands out about this first class of questions. It may nonetheless be worthwhile to note that IWQs are characterized by obligatory wh-fronting. They are also subject to the various islandhood effects observed in other languages. In multiple wh-questions, only one wh-phrase undergoes fronting, while the others must remain in situ. In other words, Richards's (1997) Principle of Minimal Compliance obtains in MC. For the sake of brevity, I will not illustrate these properties here, but the interested reader may turn to Bernabé (1983) and Syea (2017) for a fuller description of MC IWQs. Here, I would much rather draw the reader's attention to the previously undescribed class of DWQs, for which an illustration is given in (5b). DWQs are subject to the same constraints as those enumerated

⁵ The judgements presented in this section are my own and those of six other native speakers. Two of them are MC teachers, three are linguists whose main work revolves around MC, and the last one is a high school teacher. All six currently live in Martinique and make frequent use of the language. Although their judgments may vary at times, there are nevertheless some clear patterns in the use of MC DWQs.

⁶ In addition to these constraints, DWQs must abide by the constraints which apply to indefinite ones (see section 3.4).

above with respect to IWQs. Their singularity lies rather in the presence of a clause-final particle *la* (typeset in bold in all relevant examples).

(5) a. Ki sa i fè 'w?
WH it 3SG do 2SG
'What did he/she do to you?'

b. Ki sa i fè 'w **la**?
WH it 3SG do 2SG CD
'What did he/she do to you (given our shared knowledge that he/she did something to you)?'

Interestingly, this particle is phonologically identical with the nominal definite article, which I briefly discussed in section 3.2. Indeed, just as the definite article, the clause-final particle which appears in DWQs has four allomorphs subject to the very same phonological conditioning – the realization of the determiner depends on the quality of the immediately preceding segment (Bernabé 1983).

I shall show below that the resemblance between the nominal definite article and the clause-final particle of DWQs is not merely phonological, but also semantic. What matters for now, however, is that, at a superficial level, this clause-final particle constitutes the defining idiosyncrasy of DWQs. Given its similarity with the nominal definite article, I will refer to it as a clausal determiner. Admittedly, this label is unjustified at this stage, but section 3.5.2 shall provide ample motivation for my choice of terminology.

The example I have offered in (5b) contains a “bare” wh-phrase,⁷ but DWQs are perfectly compatible with *which*-type wh-phrases. This configuration is exemplified in (6a) and (6b).

⁷ How bare these wh-phrases is in fact a matter of discussion. The so-called bare wh-phrases of MC are all bimorphemic, composed of the wh-determiner *ki* and a “generic” bare noun or pronoun (*sa* ‘it’, *moun* ‘person’, *koté* ‘place’, *manniè* ‘manner’), with the notable exception of *poutji* ‘why’. However, as regards their interpretation, these wh-phrases are similar to the bare wh-phrases of other languages, such as French and English. I will therefore continue to treat them as bare wh-phrases.

- (6) a. Ki doktè i wè a?
 WH doctor 3SG see CD
 ‘Which doctor did he see (given our shared knowledge that he saw some doctor)?’
- b. Ki chanté Jan tann lan?
 WH song John hear CD
 ‘Which song did he listen to (given our shared knowledge that he listened to some song)?’

Substituting a *which*-type phrase for a bare wh-phrase is rather inconsequential, leaving aside the issue of D-linking (Pesetsky 1987), to which I shall return in section 3.4.2. To put it differently, whether the wh-constituent is a bare wh-phrase or a *which*-type phrase has no bearing on the analysis I propose here. Therefore, the reader should not be overly concerned over the fact that most examples in the present chapter feature bare wh-phrases.

In terms of their distribution, DWQs are not limited to root clauses. They may also be found in embedded contexts, as shown in (7). We may then distinguish between direct and indirect DWQs.

- (7) Man ka mandé kò mwen ki sa i wè a
 1SG IMPF ask body 1SG WH it 3SG see CD
 ‘I wonder what he saw (given our shared knowledge that he saw something).’

I will, however, restrict my attention to direct DWQs in the chapter.

To sum up, the main superficial characteristic of MC DWQ is the presence of a clausal determiner in sentence-final position. This clausal determiner is phonologically identical with the nominal definite article. DWQs may contain either bare or *which*-type wh-phrases without any significant effect on their other properties. They may also appear in root or embedded contexts. In the next few sections, we shall take a closer look at the construction-specific constraints of MC DWQs.

3.4.1.2 Constraints on extraction in definite *wh*-questions

In contrast with their indefinite counterparts, DWQs are subject to more severe constraints on extraction. While there does not appear to be any unusual limitation on object extraction, the constraints on subject extraction do appear to be more severe in DWQs than in IWQs.

Examples of object extraction are provided in (8) and (9).

- (8) a. Ki sa ou wè ___ a?
WH it 2SG see CD
'What did you see (given our shared knowledge that you saw something)?'
- b. Ki sa ou fè ___ a?
WH it 2SG do CD
'What did you do (given our shared knowledge that you did something)?'
- c. Ki sa ou krazé ___ a?
WH it 2SG break CD
'What did you break (given our shared knowledge that you broke something)?'
- (9) a. Ki sa ou ba 'y ___ la?
WH it 2SG give 3SG CD
'What did you give him (given our shared knowledge that you gave him something)?'
- b. Ki moun i ba ___ gaz la?
WH person 3SG give gas CD
'Who did he bother (given our shared knowledge that he bothered somebody)?'
(Lit. 'Who did he give gas to?')

As shown in (8), extraction of the object is possible with different types of transitive predicates. It is further shown in (9) that both the direct and the indirect object of a

ditransitive verb can be successfully extracted.

This observation extends in fact to internal arguments in general, as evidenced in (10). In (10a), the Theme argument of *palé* ‘speak’ is extracted. In (10b), it is the locative argument of *alé* ‘go’ which undergoes successful extraction.

- (10) a. Di ki sa i ka palé ___ a?
of WH it 3SG IMPF speak CD
‘What is he speaking about (given our shared knowledge that he is speaking about something)?’
- b. Ki koté i alé ___ a?
WH place 3SG go CD
‘Where did he go (given our shared knowledge that he went somewhere)?’

Long distance extraction of wh-objects, as illustrated in (11), does not pose any problem either.

- (11) a. Ki sa Jan di ’w [i fè ___ a]?
WH it John say 2SG 3SG do CD
‘What did John tell you that he did (given our shared knowledge that John told you that he did something)?’
- b. Di ki sa Mari di ’w [Jan palé ___ a]?
of WH it Mary say 2SG John speak CD
‘What did Mary tell you that John spoke about (given our shared knowledge that Mary told you that John spoke about something)?’

In both (11a) and (11b), the wh-phrase is first-merged inside the embedded clause and raises (successive-cyclically) to the left periphery of the matrix clause. These data lead us to the conclusion that the presence of the clausal determiner in MC DWQs does not have any adverse effect on the extractability of internal arguments.

Matters get somewhat muddier when it comes to subject extraction, which is

reflected in the variability in speakers' acceptability judgments. Note, however, that all my consultants agree on the well-formedness of sentences such as (12),⁸ where the subject of a transitive verb is extracted.

- (12) a. Ki moun ki ___ jwenn Pol la?
 WH person COMP meet Paul CD
 'Who met Paul (given our shared knowledge that somebody met Paul)?'
- b. Ki moun ki ___ mennen Mari Lanmanten an?
 WH person COMP bring Mary Lamentin CD
 'Who took Mary to Lamentin (given our shared knowledge that somebody took Mary to Lamentin)?'

In (12a), the wh-subject of the transitive *jwenn* 'meet' is successfully wh-fronted, as evidenced by the fact that it precedes the complementizer *ki*. The same applies in (12b) to the subject of the ditransitive verb *mennen* 'bring'.

There is, however, more variation when it comes to the extraction of the subjects of intransitives, both unergatives and unaccusatives. Some of my consultants thus consider (13a) and (13b) to be degraded, while others find these DWQs perfectly fine.

- (13) a. (?)Ki moun ki palé a?
 WH person COMP speak CD
 'Who spoke (given our shared knowledge that somebody spoke)?'

⁸ In both (12a) and (12b), I have chosen to use a proper name in object position, on the grounds that MC proper names cannot combine with a definite article to form a DP. This is meant to obviate a parse where the determiner might be analyzed as a nominal, rather than clausal, determiner. Additionally, MC is subject to a PF rule which prevents the overt realization of adjacent homophonous determiners (Bernabé 1983) (see section 2.5).

b. (?)Ki moun ki vini a?

WH person COMP come CD

‘Who came (given our shared knowledge that somebody came)?’

It would thus appear that there is a contrast, although not a sharp one, between transitives and intransitives as regards the extractability of their subjects. I will return to this issue in section 3.6.3.

As for adjunct extraction, the data suggest that it is not subject to any construction-specific constraint. Nonetheless, for the sake of illustration and completeness, I offer the examples in (14).

(14) a. Poutji i vini a?⁹

why 3SG come CD

‘Why did he come (given our shared knowledge that he came for some reason)?’

b. Ki manniè i vini a?

WH manner 3SG come CD

‘How did he come (given our shared knowledge that he came in some way)?’

c. Apré ki sa i vini a?

after WH it 3SG come CD

‘What did he come after (given our shared knowledge that he came after something)?’

This section has established that the only idiosyncratic constraints on extraction in MC DWQs concern subjects. Extracting the subject of a transitive is accepted by all

⁹ Strictly speaking, (14a) does not constitute a case of adjunct extraction; at least not, if we take seriously the view that *why* wh-phrases are based-generated in the left periphery of the clause (Rizzi 2001). At any rate, this does not affect the conclusion that DWQs do not impose any specific constraint on the interrogation of adjuncts.

speakers, but judgments vary when it comes to the subjects of intransitives, both unergatives and unaccusatives. This point of variation will be addressed in section 3.6.3, but let us first consider another type of constraints found in DWQs, namely definiteness constraints.

3.4.1.3 *Definiteness constraints in definite wh-questions*

MC DWQs are subject to peculiar definiteness constraints. In order to study them, I will distinguish between two basic configurations – subject extraction vs. non-subject extraction.

In section 3.4.1.2, I established that internal arguments can be freely extracted. However, this statement needs to be qualified: internal argument extraction is only possible if the subject is definite.¹⁰ Hence the contrasts in (15) and (16).

¹⁰ There seems to be a bit of variation here among MC speakers. Anne Zribi-Hertz (p.c.) tells me that the grammar of her informants seems to be more liberal with respect to the grammaticality of DWQs with an indefinite object. For this set of speakers, examples such as (i) pose no problem.

- (i) Ki moun ki achté an foyapen **an**?
WH person COMP buy a breadfruit CD
'Who bought a breadfruit (given our shared knowledge that someone brought a breadfruit)?'

My own intuitions and those of the greater majority of my consultants are markedly different. Examples such as (i) are categorically rejected as ungrammatical. The grammar described in this chapter is the one instantiated in this second set of speakers. It is quite possible that it coexists with a more liberal grammar of MC DWQs, as reflected in the fact that (i) is grammatical for some speakers. We are faced with the issue of variation previously alluded to in section 3.2 and fn. 27 of chapter 2 (see also fn. 22 of chapter 4), i.e. is there a unique MC grammar, or instead multiple grammars? The issue is clearly related to that of creole continua (see Patrick 2008 for an overview of the issue of variation in creole and pidgin languages). An extensive study of variation in MC is clearly in order, but it must be left for future research. At this stage, I would nonetheless like to venture a conjecture regarding the acceptability of (i) for some speakers.

I hypothesize that pseudo incorporation (Massam 2001) may be at play. To test out this hypothesis, one would need to determine which type of reading can be attributed to the indefinite object in DWQs such as (i): existential? Generic? Both? If pseudo incorporation is indeed at play, then we would expect it to receive

- (15) a. Ki sa doktè a manjé a?
 WH it doctor DEF eat CD
 ‘What did the doctor eat (given our shared knowledge that the doctor ate something)?’
- b. *Ki sa an doktè manjé a?
 WH it a doctor eat CD
 ‘What did a doctor eat (given our shared knowledge that a doctor ate something)?’ (Intended)
- (16) a. Ki sa doktè a ba ’w la?
 WH it doctor DEF give 2SG CD
 ‘What did the doctor give you (given our shared knowledge that the doctor gave you something)?’
- b. *Ki sa an doktè ba ’w la?
 WH it INDEF doctor give 2SG CD
 ‘What did a doctor give you (given our shared knowledge that a doctor gave you something)?’ (Intended)

In (15a), where the subject of the transitive verb *manjé* ‘eat’ is definite, the DWQ is completely fine. In contrast, (15b) is ill-formed because its subject is an indefinite NP. The data in (16) are similar, except for the fact that these examples contain a ditransitive verb, *ba* ‘give’. We may then propose as a provisional generalization that in cases of internal argument extraction, the subject of a DWQ must be definite.

This observation additionally carries over to adjunct extraction.¹¹ The grammatical

generic reading. In other words, (i) would not involve reference to an identifiable breadfruit. See section 3.6.2 for the relevance of that factor.

¹¹ Here again, there seems to be some variation. Anne Zribi-Hertz points out that her consultants consider (i) to be well-formed, which goes against the observations made in the text.

(17a) contains a definite subject and contrasts with the ungrammatical (17b) which contains an indefinite subject.

- (17) a. Ki koté boug la dòmi a?
WH place man DEF sleep CD
'Where did the man sleep (given our shared knowledge that the man slept somewhere)?'
- b. *Ki koté an boug dòmi a?
WH place a man sleep CD
'Where did a man sleep (given our shared knowledge that a man slept somewhere)?' (Intended)

We may then revise our earlier generalization as follows: the subject must necessarily be definite in a DWQ where a non-subject constituent (i.e. an internal argument or an adjunct) is extracted.

Let us now look at subject extraction and determine whether it too is subject to definiteness constraints. Given the observed contrasts in section 3.4.1.2, we should explore whether there is a distinction between subjects of intransitives and subjects of transitives. The latter case is illustrated in (18), where it is shown that the object must be definite.

-
- (i) Ki moun ki dòmi adan an kannot la?
WH person COMP sleep in a boat CD
'Who slept in a boat (given our shared knowledge that someone slept in a boat)?'

The observations made in fn. 10 carry over to these facts. Is the speaker referring to a specific boat? Or could it be that the indefinite NP receives a generic reading? In other words, one may assume a scenario where the speaker uses (i) to ask her interlocutors whether one of them has ever slept in a boat. A felicitous answer to that question could refer to an individual who has slept in boats at various times in her life. The indefinite object would then receive a generic-like reading. It remains to be determined whether these speculations are valid.

- (18) a. Ki moun ki enmen Mari a?
 WH person COMP like Mary CD
 ‘Who likes Mary (given our shared knowledge that somebody likes Mary)?’
- b. *Ki moun ki enmen an/dé tifi a?
 WH person COMP like a/two girl CD
 ‘Who likes a girl/two girls (given our shared knowledge that somebody likes a girl/two girls)?’ (Intended)

In the well-formed (18a), the object is a proper name, hence definite. On the other hand, (18b) contains an indefinite object and is therefore ungrammatical. These data suggest the following generalization: the object must be definite when the subject of a transitive verb is extracted in a DWQ.

It is in fact a constraint which extends to internal arguments in general. Consider the data in (19a-d), where the main verb is *mennen* ‘bring’, which takes two internal arguments – a Theme and a Locative.

- (19) a. Ki moun ki mennen Mari Fodfwans lan?
 WH person COMP take Mary Fort-de-France CD
 ‘Who took Mary to Fort-de-France (given our shared knowledge that someone took Mary to Fort-de-France)?’
- b. *Ki moun ki mennen dé tifi Fodfwans lan?
 WH person COMP take two girl Fort-de-France CD
 ‘Who took two girls to Fort-de-France (given our shared knowledge that someone took two girls to Fort-de-France)?’ (Intended)
- c. *Ki moun ki mennen Mari an koté a?
 WH person COMP take Mary INDEF place CD
 ‘Who took Mary to a place (given our shared knowledge that someone took Mary to a place)?’ (Intended)

- d. *Ki moun ki mennen dé tifi an koté a?
 WH person COMP take two girl INDEF place CD
 ‘Who took two girls to a place (given our shared knowledge that someone took two girls to a place)?’ (Intended)

Of these four examples, only (19a) is well-formed because it alone contains two definite internal arguments. Combining a definite argument with an indefinite argument, as in (19b,c), or two indefinite arguments, as in (19d), will yield an ungrammatical sentence. The generalization should then be that all internal arguments must be definite when the subject is extracted in a DWQ.

This constraint obviously does not carry over to the configuration where the subject of an intransitive is extracted. Nevertheless, even in that case, definiteness constraints will obtain, but they will then apply to any adjunct DP present in the DWQ. This is illustrated by the contrasts in (20) and (21), which feature an unergative and unaccusative verb, respectively.

- (20) a. Ki moun ki dòmi Fodfwans lan?
 WH person COMP sleep Fort-de-France CD
 ‘Who slept in F-d-F (given our shared knowledge that someone slept in F-d-F)?’

- b. *Ki moun ki dòmi adan an kay la?
 WH person COMP sleep in a house CD
 ‘Who slept in a house (given our shared knowledge that someone slept in a house)?’

- (21) a. Ki moun ki rivé jédi a?
 WH person COMP arrive Thursday CD
 ‘Who arrived on Thursday (given our shared knowledge that someone arrived on Thursday)?’

- b. *Ki moun ki rivé an maten an?
 WH person COMP arrive INDEF morning CD
 ‘Who arrived on a morning (given our shared knowledge that someone arrived on a morning)?’ (Intended)

The (a) examples in (20) and (21) are both fine due to the fact that they contain a definite adjunct. The (b) examples, on the other hand, are out, as they both feature an indefinite adjunct. Should we therefore propose yet another generalization, this time focusing on subject extraction and adjuncts? The answer is no, as this would fail to capture a wider generalization.

As a matter of fact, the data we have reviewed so far suggest that we can propose a simpler and broader generalization which subsumes the various constraints described above – all overt noun phrases in a DWQ, other than the wh-phrase, must be definite. This is a generalization which sums up the definiteness constraints on both arguments and adjuncts in cases of either subject or object extraction.

This generalization also captures the fact that in cases of adjunct extraction, all overt arguments are necessarily definite. For illustration, consider the data in (22) and (23).

- (22) a. Ki koté tibolonm lan dòmi a?
 WH place boy DEF sleep CD
 ‘Where did the boy sleep (given our shared knowledge that the boy slept somewhere)?’

- b. *Ki koté an tibolonm dòmi a?
 WH place INDEF boy sleep CD
 ‘Where did a boy sleep (given our shared knowledge that a boy slept somewhere)?’ (Intended)

- (23) a. Ki koté tibolonm lan jwenn Mari a ?
 WH place boy DEF meet Mary CD
 ‘Where did the boy meet Mary (given our shared knowledge that the boy met Mary somewhere)?’

- b. *Ki koté an tibolonm jwenn Mari a?
 WH place INDEF boy meet Mary CD
 ‘Where did a boy meet Mary (given our shared knowledge that a boy met Mary somewhere)?’ (Intended)
- c. *Ki koté tibolonm lan jwenn an tifi a?
 WH place boy DEF meet INDEF girl CD
 ‘Where did the boy meet a girl (given our shared knowledge that the boy met a girl somewhere)?’ (Intended)

The contrast in (22) shows that in cases of adjunct extraction the subject must be definite. This is further evidenced in (23), where it is additionally shown that the object too must be definite. All these observations are in line with the generalization I have proposed, and which I repeat in (24) for later reference.

(24) **Definiteness constraints in MC DWQs:**

All overt noun phrases in a DWQ, except for the wh-phrase, must be definite.

In this section we established that MC DWQs are subject to definiteness constraints. Regardless of which constituent is extracted, whether it is an argument or an adjunct, all other noun phrases in a DWQ must be definite.

3.4.1.4 Interim summary

MC DWQs are mainly characterized by the presence of a clausal determiner in string-final position, but they are subject to construction-specific constraints. To begin with, some speakers consider it ungrammatical to extract the subject of an intransitive verb in a DWQ, a constraint which does not apply to IWQs. In addition, in contrast to IWQs, DWQs exhibit definiteness constraints to the effect that all overt noun phrases, except for the wh-fronted constituent, must be definite. An adequate analysis of these constructions should therefore account for these properties. Before considering such an analysis, let us investigate the semantics and pragmatics of DWQs.

3.4.2 The semantics and pragmatics of definite wh-questions

A striking characteristic of DWQs is that, unlike IWQs, they cannot be uttered out of the blue. Thus, the DWQ in (25a) would be markedly odd as a conversation starter, while its IWQ counterpart in (25b) would be totally fine.

- (25) [Context: After exchanging greetings with her interlocutor, the speaker utters...]
- a. #Ki sa ou fè a?
WH it 2SG do CD
‘What did you do (given our shared knowledge that you did something)?’
- b. Ki sa ou fè?
WH it 2SG do
‘What did you do?’

There are, however, contexts such as (26) where both DWQs and IWQs are licit.

- (26) [Context: After exchanging greetings, the following exchange takes place between A and B.]
- A: Yè oswè, man té otjipé
yesterday at.evening 1SG ANT busy
‘Last night, I was busy.’
- B: a. Ki sa ou fè a? (= (25a))
‘What did you do (given our shared knowledge that you did something)?’
- b. Ki sa ou fè? (= (25b))
‘What did you do?’

This begs the question of what is so distinctive about the context in (26) that it should license (25a), while the one in (25) cannot. The obvious difference is A’s utterance and what it implies for the common ground. To be specific, A’s utterance introduces into the

common ground the proposition that A was busy last night, which in turn introduces into the common ground, as an inference,¹² the proposition that A did something. I therefore hypothesize that the latter proposition, referred to as *p* in (27), is what allows for the felicitous use of (26Ba) (=25a)).

(27) [[*p*]] = there is a thing *x* such that A did *x* last night¹³

It thus appears that DWQs involve some form of anaphoricity, as their felicity hinges on the input common ground containing a proposition of the relevant form.

Now, to determine what qualifies as a proposition of the relevant form, more manipulations are necessary. Specifically, let us replace A's initial utterance with (28A). The result of this manipulation is that, once again, the DWQ in (25a) is infelicitous, with no effect on the acceptability of the IWQ in (25b). This contrast between (26A) and (28A), I argue, follows from the fact that the latter does not license the inference that there is a thing *x* such that A did *x* last night. Of course, one could retort that A's sleeping well is a consequence of his having done something, but this does not have to be so. The input common ground will therefore not include *p*, the proposition in (27), which I take to be the licenser of the DWQ in (26Ba) (=25a)).¹⁴

(28) [Context: After greetings are exchanged, the following conversation ensues
 between A and B.]

¹² I am using the term *inference* in a rather loose way. It should in fact be said that the speaker makes an inference from a proposition. I shall nevertheless continue to associate inferences with propositions, rather than speakers, simply to avoid unnecessary wordiness.

¹³ A more accurate representation involving event semantics would be that there is an event *e* such that A is the agent of *e*. I will, however, go on pretending as if we were merely speaking of individuals, as this issue is largely orthogonal to the topic of this article.

¹⁴ One might argue that (28Ba) and (28Bb) are both infelicitous due to a lack of informativeness (see Ciardelli et al. 2018:ch. 4 for a definition of informativeness in the framework of Inquisitive Semantics), as it is already clear what A did the night before, i.e. sleep well. However, to my view, it is also reasonable to assume that B's question is really meant to ascertain what A did beside sleeping.

A: Yè oswè, man bien dòmi
 yesterday at.evening 1SG well sleep
 ‘Last night, I slept well.’

B: a. #Ki sa ou fè a? (= (25a))
 ‘What did you do (given our shared knowledge that you did something)?’

b. Ki sa ou fè? (= (25b))
 ‘What did you do?’

What these facts show is that not just any utterance by A will license a DWQ. What is required is that A’s utterance introduces into the common ground a proposition which asserts the existence of a variable which must share: (a) the same domain as the variable in the DWQ, and (b) the same properties as those attributed to the variable in the nucleus of the wh-question. These licensing conditions are summarized in (29).

(29) **Licensing conditions of definite wh-questions**

Let P be a direct wh-question such that

$$\llbracket P \rrbracket = \lambda x. p(x)$$

P is felicitous if:

a. $Q \subseteq cg$, where *cg* is the common ground and Q is a proposition such that

$$\llbracket Q \rrbracket = \exists x. p(x)$$

b. $\text{dom}(P) = \text{dom}(Q)$

In other words, a DWQ is licensed by the presence in the input common ground of the relevant existential proposition. I shall therefore refer to it as an antecedent proposition,¹⁵ thus capturing the role that anaphoricity plays in DWQs.

In all the examples I have offered so far, the antecedent proposition is an inference drawn from a previous utterance. Unsurprisingly, it can also quite simply be part of the proffered content of an earlier utterance. By way of illustration, consider A’s utterance in (30). That (25a) is licensed in this context follows straightforwardly from the fact that the

¹⁵ Of course, this should not be mistaken for the use of that term in the description of conditionals.

proffered content of (30A) has the representation in (31), making it a valid antecedent proposition.

(30) [Context: After exchanging greetings, the following exchange takes place between A and B.]

A: Yè oswè, man fè an bagay
yesterday at.evening 2SG do a thing
'Last night, I did something.'

B: a. Ki sa ou fè a? (= (25a))
'What did you do (given our shared knowledge that you did something)?'

b. Ki sa ou fè? (= (25b))
'What did you do?'

(31) [(30A)] = there is at least a thing x such that (s.t.) A did x last night

Given these data, I am led to the conclusion that an utterance may contribute an antecedent proposition either directly, through its proffered content, or indirectly, through its entailments/inferences.

World knowledge and extralinguistic facts and events may contribute propositions to the common ground (Roberts 1996, 2004) and thus license DWQs. Thus, consider the context of utterance in (32), where the sound of broken glass suffices to license (25a).

(32) [Context: There has been no previous conversation between A and B when B hears the loud noise of broken glass coming from the kitchen, where A is the only person present. B runs to the kitchen and questions A.]

B: a. Ki sa ou fè a? (= (25a))
'What did you do (given our shared knowledge that you did something)?'

b. Ki sa ou fè? (= (25b))
'What did you do?'

(33) $[[p]] = B$ believes that there is at least a thing x s.t. A did x

Here, based on the evidence available to him, B is led to believe that A has done something which caused the sound of breaking glass he heard coming from the kitchen. This proposition p , represented in (33), serves as an antecedent for the DWQ. From this, we may confidently draw the conclusion that a salient extralinguistic event may contribute an antecedent proposition and thus license a DWQ.

Yet another way for an antecedent proposition to enter the common ground is exemplified in (34). Here, the proposition is provided through an inference derived from A's utterance, which includes a weak definite in the sense of Carlson et al. (2006), viz. *o marché* 'to the market'.¹⁶ A crucial property of weak definites is that they "mean" much more than what their proffered content suggests. For instance, A's utterance in (34) does not simply refer to an event of John going to the market. It also implies that he went there to buy something and that he probably did so. This utterance is thus likely to contribute, by way of an inference, the proposition represented in (35), which is the obvious antecedent for B's DWQ in (34B).

(34) A: Jan alé o marché bonmaten an
John go at.the market morning DEF
'John went to the market this morning.'

¹⁶ See Zribi-Hertz and Jean-Louis (2014), where it is shown that MC weak definites differ from other definites in significant ways, in particular with respect to the morphosyntax of the definite article. In other definites, the article appears in post-NP position, but in weak definites it must appear before the NP and it must in fact generally agglutinate with the noun. In (34A), however, the pronominal article presumably amalgamates with a preceding preposition, thus forming with it the synthetic form *o* 'at/to the'. This process is arguably comparable to the one which underlies forms such as *au* 'at/to the' and *du* 'of/from the' in French, MC's lexifier.

- B: a. *Ki sa i achte a?*
 WH it 3SG buy CD
 ‘What did he buy (given our shared knowledge that he bought something)?’
- b. *Ki sa i achte?*
 ‘What did he buy?’

(35) $\llbracket p \rrbracket$ = there is at least a thing x s.t. John bought x this morning¹⁷

To account for these facts, I hold that it is A’s utterance in (34), combined with world knowledge, which introduces the antecedent proposition. This last piece of data rounds out my non-exhaustive exploration of the ways in which an antecedent proposition can enter the common ground and thus license a DWQ.¹⁸

Let us now consider some of the predictions which follow from the crucial role I attribute to antecedent propositions in my analysis of DWQs. I would like to consider in particular whether IWQs are subject to the same constraints. As a matter of fact, it is often claimed in the literature that wh-questions trigger an existential presupposition (Katz 1972; Lyons 1977; Karttunen 1977, 2016). Given the view of presuppositions described in section 3.3, this would translate as the inclusion in the common ground of an existential presupposition, which would apparently put canonical wh-questions on a par with DWQs. However, Abusch (2010) mounts a serious challenge to this claim, as she argues convincingly that the existential presupposition that some linguists associate with wh-questions is easily cancelled. By way of illustration, consider (36), freely inspired from Abusch’s (16). The scenario here is that the speaker’s husband intends to organize a party in her honor. The speaker, however, has alienated her friends and relatives, and she is aware of it. Therefore, when asking the question in (36), the speaker is unlikely to believe that

¹⁷ A more adequate denotation should include modal quantification. However, this has no bearing on the point that is made here, viz. the fact that weak definites can license DWQs.

¹⁸ Owing to the considerable importance of pragmatics in the licensing of DWQs, it is obvious that the study of these constructions would greatly benefit from empirically attested data, rather than elicited material or acceptability judgements. Unfortunately, there is presently no large enough corpus of MC to circumvent this shortcoming.

there is actually someone who would come to this party. The proposition *p* in (37) is therefore very unlikely to be part of the common ground.

(36) [Context: The speaker has alienated all her friends, but her husband has decided to organize a party in her honor. He has sent invitations to all her friends.]

Man goumen épi tout moun. Ki moun ki ké vini?
 1SG fight with all person WH person COMP WOLL come
 ‘I quarreled with everybody. Who will come to the party?’

(37) $\llbracket p \rrbracket$ = there is a person *x* such that *x* will come to the party

In light of these facts, we can safely draw the conclusion that, unlike DWQs, IWQs do not require an antecedent proposition to be licensed.

That DWQs and IWQs pattern differently with respect to their reliance on an antecedent proposition also predicts that they differ in their compatibility with *nothing*-type answers. As a matter of fact, such an answer should be acceptable if and only if the common ground does not include an antecedent proposition. This would otherwise result in an inconsistent common ground, which would create a crisis in the conversation (Farkas and Bruce 2010). We should therefore expect that DWQs do not tolerate *nothing*-type answers, while IWQs do. This prediction is borne out, as shown in (38) and (39).

(38) A: Mari di mwen i té otjipé yè oswè.
 Mary say 1SG 3SG PST busy yesterday at.night
 ‘Mary told me that she was busy last night.’

B: Ki sa i té ka fè a?
 WH it 3SG PST IMPF do CD
 ‘What was she doing (given our shared knowledge that she was doing something last night)?’

A: #Ayen
 ‘Nothing’

(39) [Context: No previous conversation.]

A: Ki sa ou ka fè oswè ?
WH it 2SG IMPF do at.night
'What are you doing tonight?'

B: Ayen
'Nothing'

In (38), it can be inferred from A's utterance that there is a thing x such that Mary did x last night. We may then assume that this proposition enters the common ground and serves as the antecedent proposition which licenses B's DWQ. Concomitantly, this proposition disallows A's reply because it contradicts the antecedent proposition, which would plunge the conversation into a crisis. In (39), on the other hand, the common ground is free from any proposition that would contradict B's reply. The latter is thus perfectly acceptable. Because of their dependence on an antecedent proposition, DWQs do not tolerate *nothing*-type answers. In contrast, IWQs may tolerate such answers because their licensing does not depend on an antecedent proposition.¹⁹ Given the Stalnakerian view of presuppositions, we may then claim that the main semantic/pragmatic difference between DWQs and IWQs is that they diverge in their presuppositional requirements.

Despite this difference, DWQs and IWQs are not mutually exclusive. A DWQ can always be replaced by an IWQ, but the converse does not hold. The free variation between IWQs and DWQs is limited to cases where the common ground contains an adequate antecedent proposition. Thus, I propose that DWQs are pragmatically marked, insofar as they convey the additional information that not only is the speaker interested in establishing the identity of the questioned constituent, but that he also has some motivation for pointing

¹⁹ This statement should be mitigated. We have seen that the presence in the common ground of a potential antecedent proposition does not preclude the use of an IWQ. Supposing then that an IWQ is uttered despite the presence of an antecedent proposition, a *nothing*-type answer will also result in an inconsistent common ground. If, however, no antecedent proposition is contained in the common ground, such an answer will pose no problem.

out the presence of an antecedent proposition in the common ground.²⁰ What this motivation is will depend on the context. Take, for instance, (40), where the speaker's use of a DWQ communicates a reproach of sorts.

(40) [Context: During a heated exchange between, B directs some nasty words at A.]

A: Ki sa ou di a?

WH it 2SG say CD

'What did you say (given our shared knowledge that you said something)?'

In that scenario, it is quite clear that A is not so much interested in determining what B has said as in drawing B's attention to the fact that B has said something which A probably considers offending. The use of an IWQ here, while not impossible, would not be in line with A's intentions. In more neutral situations, by choosing a DWQ, the speaker signals to the hearer that they both know that an antecedent proposition holds in the common ground, so that he will not tolerate a *nothing*-type answer. An IWQ, on the other hand, will allow the hearer to negate the antecedent proposition (but see fn. 19), but this may require accommodation.

It is also important to note that the restrictions on the common ground associated with DWQs should not be mistaken for D-linking (Pesetsky 1987). In D-linked questions, the domain of the *wh*-phrase is limited to a pre-established set of entities. There is no such constraint on DWQs, as shown in (41).

²⁰ To put it differently, it would seem as if DWQs perform an additional speech act. What that speech act is precisely, I must leave for further investigation. Whether it is an assertion or a command is not entirely clear to me. While there are contexts where it would appear that the speaker is demanding an answer (see (40) for example), there are other contexts where the speaker simply seems to assert that the presupposition cannot be denied. Thus, in (38), it would be odd for the speaker to demand a precise answer from his interlocutor, as it may very well be that she does not know what Mary did, but simply that Mary did something. It would therefore seem that in uttering the DWQ in (38), the speaker is simply asserting that *nothing* is not an acceptable answer. In any case, future work on DWQs should take a closer look at their performative component.

(41) A: Jan ay o marché bonmaten an
 John go at.the market morning DEF
 ‘John went to the market this morning.’

B: Ki sa anlè latè Bondié i achté a?
 WH it on earth God 3SG buy CD
 ‘What on earth did he buy?’

The presence of an aggressively non-D-linked wh-phrase in (41) (*ki sa anlè latè Bondié* ‘what on God’s earth’) proves that DWQs do not impose any restrictions on the set of entities in the range of the wh-phrase.

Nevertheless, it is equally important to note that DWQs are compatible with D-linking. All it takes for a D-linked wh-phrase to appear in a DWQ is for its domain to be restricted to an already established salient set of entities. This configuration is exemplified in (42).

(42) A: Jan wè dé bel tablo, yann di Picasso, yann di Dali.
 John see two beautiful painting one of Picasso one of Dali
 I di mwen i achté yann pami yo.
 3SG say 1SG 3SG buy one among them
 ‘John saw two beautiful paintings, one by P., one by D. He told me he bought one of them.’

B: Kiles i achté a?
 which 3SG buy CD
 ‘Which one did he buy (given our shared knowledge that he bought one of the two aforementioned paintings)?’

In this scenario, the domain of the wh-phrase has been restricted by A’s utterance to two paintings. Hence, the felicitous use of the D-linked wh-phrase by B. The use of a DWQ, for its part, is justified by the fact that A’s utterance has brought into the common ground the antecedent proposition that there is a painting *x* such that John bought *x*. D-linking is thus compatible with DWQs.

I must nonetheless insist on the fact that the two phenomena are independent. D-

linking will not, of itself, force the use of a DWQ, as evidenced in (43).

(43) A: Jan jwé dé match: yann kont Pol, yann kont Mark
John play two game one against Paul one against Mark
'John played two games: one against Paul, one against Mark.'

B: #Kiles i ped la?
which 3SG lose CD
'Which one did he lose (given our shared knowledge that he lost one of the
aforementioned games)?'

Here, the use of a D-linked wh-phrase is licensed by the fact that its domain is limited to the set of two games mentioned by A. However, A's utterance does not entail that John lost any one of the two games which he played. The common ground will therefore not contain an adequate antecedent proposition. Hence, the oddness of a DWQ in this context. These observations buttress the view that DWQs and D-linking are independent, but compatible, phenomena.

The main takeaway of this overview of the semantic and pragmatic properties of DWQs is that they cannot be used unless the common ground contains an antecedent proposition, which takes the form of an existential presupposition. This proposition can enter the common ground in various ways, including the following: (a) it may be part of the proffered content of a prior utterance; (b) it may be an inference which the speaker can draw from one of the propositions in the common ground; and (c) it may be introduced through some salient fact or event in the context of utterance. The requirement for an antecedent proposition has two major effects. First, a DWQ cannot be uttered out of the blue. Second, DWQs do not tolerate *nothing*-type answers. Also, the choice of a DWQ indicates that, for some reason, the speaker intends to highlight the existence of an antecedent proposition. Finally, D-linking and DWQs form two independent but compatible phenomena. In concluding this section, I would like to suggest the somewhat obvious hypothesis that the source of these properties is the clausal determiner. Given the similarity of this determiner with the definite article, I will now explore the role of definiteness in DWQs.

3.5 The crucial role of definiteness in definite wh-questions

In this section I argue that definiteness²¹ plays a crucial role in MC DWQs and attribute this to the presence of a clausal determiner. This morpheme, through its syntax and semantics, accounts for the various properties of DWQs, in particular the hard presupposition they are associated with.

3.5.1 Evidence for the relevance of definiteness

It was established earlier that a crucial licensing condition of DWQs is their reliance on an antecedent proposition. Earlier, I referred to the notion of anaphoricity, which we may in fact equate with that of familiarity. I shall therefore freely alternate between these two terms with the intent of highlighting the parallelisms between definiteness in the nominal and the clausal domain.

Dating back to at least Christophersen (1939), familiarity has been recruited as the main ingredient for a well-known theory of definiteness.²² On this approach, a definite description is felicitous just in case its referent is familiar to all speech participants. A famous implementation of this view is found in Heim's (1982) Novelty-Familiarity Condition. The first half of it, viz. the Novelty Condition, stipulates that an entity which does not yet belong to the domain of discourse must be referred to with an indefinite DP. The Familiarity Condition, on the other hand, states that if an entity already belongs to the domain of discourse, it can only be referred to with a definite DP. These requirements are illustrated in (44).

(44) A man and **a/#the woman** came in. **The/#a woman** was speaking German.

²¹ Again, see fn. 3, where I acknowledge that in light of the insights from chapter 2, it may be more appropriate to speak of specificity, rather than definiteness. However, for the reasons enunciated in that footnote, I shall keep referring to definiteness construed here in terms of familiarity/anaphoricity.

²² It is a well-known fact that this theory cannot of itself account for all definite descriptions (Lyons 1999; Schwarz 2009, 2013). What matters here, though, is that the familiarity-based theory of definiteness can account for at least some of the uses of definite descriptions, including those considered in this paper.

In the first sentence, the speaker introduces into the domain of discourse an entity which matches the property denoted by the NP – that entity, in other words, is a woman. Because no previous reference has been made to this referent, the speaker must use an indefinite DP, *a woman*. Using a definite noun phrase instead would be undeniably odd. In the second sentence, conversely, the speaker can only use a definite noun phrase, because the referent was introduced into the domain of discourse in the previous sentence. All these facts are adequately captured under the familiarity-based approach to definiteness.

As we saw earlier (section 3.2), this view of definiteness straightforwardly extends to MC definite descriptions. In (45), the literal translation of (44), the indefinite DP in the first sentence (*an fanm* ‘one woman’) refers to a novel entity; it is thus headed by the pre-nominal indefinite article. In contrast, in the second sentence, this now familiar entity must be referred to with a definite DP (*fanm lan* ‘the woman’). Just as in (44), these are the only alternatives available to the speaker.

- (45) An nom ek **an fanm** antré. **Fanm lan** té ka palé
 INDEF man CONJ INDEF woman come.in woman DET ANT IMPF speak
 alman
 German
 ‘A man and a woman came in. The woman was speaking German.’

Thus, the Novelty-Familiarity Condition is also relevant to the distinction between indefinite and definite DPs in MC.

Now, the fact that the felicitous use of a definite description requires that its referent be known by the discourse participants is evidence that definite descriptions trigger existential presupposition. Take, for instance, the second sentence in (44): *The woman was speaking German*. The proposition it denotes cannot be attributed a truth value unless there is a unique x such that x is a woman. Given the Stalnakerian view of presuppositions, we can safely affirm that definite descriptions require the inclusion in the common ground of a certain existential proposition. This is obviously reminiscent of the licensing conditions of DWQs. I take this similarity in requirements as evidence for the view that definiteness, construed in terms of familiarity/anaphoricity, plays a crucial role in DWQs.

This hypothesis is very far from being extravagant. After all, the literature is replete with proposals which suggest that (in)definiteness is not limited to the nominal domain (see, a.o., Lefebvre 1992, 1998; Tsoulas 1994a, b; Baker and Travis 1997; Larson 2003; Ferreira 2005, 2016; Renans 2016a, b, 2019). Although they are not all based on the same definition of definiteness, some of these studies do rely on the notion of familiarity. Renans (2019), for instance, invokes familiarity in her analysis of Ga clefts.²³ These incidentally feature what she labels an event determiner, which she hypothesizes to encode reference to a familiar eventuality. Determiners are therefore not restricted to the nominal domain (Leu 2015a); neither is the notion of definiteness. Universal Grammar (UG) should therefore allow the possibility for certain languages to possess markers that refer to familiar propositions, not only familiar entities and eventualities. This, I would like to suggest, is the case of the clausal determiner found in MC DWQs.

In support of this view, I can point to the obvious morphological resemblance between the clausal determiner and the definite article, as well as the fact that they both trigger an existential presupposition. In both cases, the presupposition can be described as hard, in Abusch's (2010) parlance, i.e. it cannot be canceled. Given the similarity between these two determiners, I would now like to further the exploration of the parallelism

²³ Of course, it is a cross-linguistic property of clefts that they distinguish between the focus denoted by the fronted constituent and the backgrounded (i.e. familiar) information denoted by the rest of the sentence. However, backgroundedness is not overtly marked in all languages. In fact, it is not even marked in MC, as illustrated in (i).

- (i) Sé doktè a ki di mwen pran konprimé tala (*a)
 sé doctor DEF COMP say me take pill DEM LA
 'It is the doctor who told me to take this pill.'

The fact that *la* cannot appear in the string-final position of the relative clausal in (i) is of particular interest to the study of DWQs. As a matter of fact, given the apparent similarity of DWQs with cleft wh-questions as regards their strong presuppositional character, one might be tempted to analyze DWQs as “truncated” cleft wh-questions in the sense that they would contain an elided *sé*. An obvious challenge to this analysis is that string-final *la* cannot appear in MC clefts (regardless of whether one analyzes this morpheme as a clausal determiner or the spell-out or Specif, as proposed in chapter 2). MC DWQs are therefore distinct constructions which require a distinct analysis.

between MC's (in)definite noun phrases and its (in)definite wh-questions and establish how far it extends.

Let us start with definite descriptions and DWQs. We have seen have that the felicity of both constructions depends on an existential presupposition, which we may view as the hallmark of definiteness. The importance of definiteness in DWQs thus clearly goes far beyond the presence of the clausal determiner. We should not, however, overlook the importance of this marker. In fact, *la* and its allomorphs appear to be the morphological exponents of a [+DEF] feature in both definite descriptions and DWQs. In both cases, I hold that the presupposition is encoded in the lexical entry of the [+DEF] feature, which accounts for its non-cancelability. I shall return this topic in section 3.5.3. At any rate, the parallelism between MC definite descriptions and DWQs appears to be a strong one. Let us now see whether the same can be said of the one between indefinite descriptions and IWQs.

I must immediately point out a major limitation to this parallelism. Within Heim's (1982) theory, indefinite NPs are subject to the Novelty Condition, which dictates that they must necessarily refer to an unfamiliar individual. In contrast, IWQs are not necessarily associated with "novel" propositions, i.e. propositions which did not yet belong to their input common ground. As noted earlier, they can also be used even when the common ground includes a potential antecedent proposition. Strictly speaking, then, they should not be referred to as indefinite. It would be more accurate to describe them as unspecified with respect to definiteness.

This limitation to the parallelism between nominals and wh-questions is further highlighted by the fact that IWQs are morphologically unmarked. In comparison, singular indefinite NPs are marked by the indefinite article *an*, as in (46).²⁴

- (46) Man tann **an** brui
1SG hear INDEF noise
'I heard a noise.'

This is somewhat unsurprising if we take seriously Leu's (2015b, to appear) observation

²⁴ Note, however, that MC plural indefinites generally surface as bare NPs (Gadelii 2007).

that indefinite and definite articles do not form a single class. That this may indeed be so in MC is evidenced by the fact that its indefinite and definite articles do not have the same distribution: the indefinite article occurs prenominally, the definite one postnominally. In any case, although the analogy between “IWQs” and indefinite NPs is imperfect, I will go on using that label for the sake of convenience and to highlight the ways in which they contrast with DWQs.

To sum up, I have argued in this section that definiteness, construed as familiarity, plays a fundamental role in MC DWQs. For a DWQ to be licensed, there must be a proposition of the relevant sort in the common ground. IWQs, on the other hand, are underspecified in the sense that they do not impose any constraint on the common ground. Although the posited analogy between the nominal and the clausal domain is imperfect, I take the notion of definiteness, qua familiarity/anaphoricity, to be of crucial importance to account for the hard presupposition which, I assume, is triggered by the clausal determiner in DWQs. Let us now take a closer look at this determiner, its syntax and semantics.

3.5.2 The syntax of the clausal determiner in DWQs

The various studies which have investigated clausal/event determiners all point to the fact that their merge position has significant implications for their interpretation and entailments (Lefebvre 1992, 1998; Larson 2003; Renans 2016a, 2019; Grubic and Renans 2017). To illustrate this correlation, we shall consider Haitian Creole (HC) declaratives where it is argued that the clausal determiner may occupy various positions along the clausal spine. I shall focus on Larson’s (2003) account, which builds on insights from previous work by Lefebvre (1992, 1998).

Larson (2003) starts out from the observation that there is a gap in the parallelism between English nominal quantifiers and quantificational adverbs, as schematized in (47), reproduced from Larson (2003:68). English lacks a quantificational adverb whose force matches that of *the*.

- (47) a. Some / All / Most / **The** men ate potato chips.
b. Sometimes / Always / Mostly/ ***The-ly** men ate potato chips.

Larson argues that this gap is filled in Haitian Creole (HC) by the clausal determiner and that we may think of it as a definite adverb which may be used to refer to previously discussed assertions, events or subevents.

Interestingly, when they include a clausal determiner, HC declaratives are potentially three-way ambiguous. By way of illustration, consider (48), adapted from Lefebvre (1998:95).

- (48) Moun nan detwi machin nan **an**
 man DEF destroy car DEF CD
 a. ‘Actually, the man destroyed the car.’ (Reading 1)
 b. ‘The man destroyed the car, as we knew that the car would be destroyed.’
 (Reading 2)
 c. ‘The man destroyed the car, as we knew that the man would destroy the car.’
 (Reading 3)

Larson (2003) argues that these readings differ from one another in terms of local presupposition. Reading 1, illustrated in (48a), is characterized by the absence of any local presupposition. On this configuration, represented in (49) (Larson’s (6)), the speaker directs his interlocutor’s attention to the fact that the proposition denoted by the sentence was previously discussed, which is to say that it was already part of the common ground.

- (49) **Local presupposition:** Ø
Assertion: destroying(e) & Agent(e,m) & Theme(e,c)

Reading 2, (48b), carries a local presupposition, as reflected in (50). That presupposition concerns a destroying event whose Theme is the car under discussion. What is asserted, then, is that the Agent of that event is the man. Reframing these facts in terms of common ground content, we may then state that, prior to the utterance of (48), the speech participants already knew of an event of car-destruction and that the new information (48) brings into the common ground is that the Agent of this event is the man.

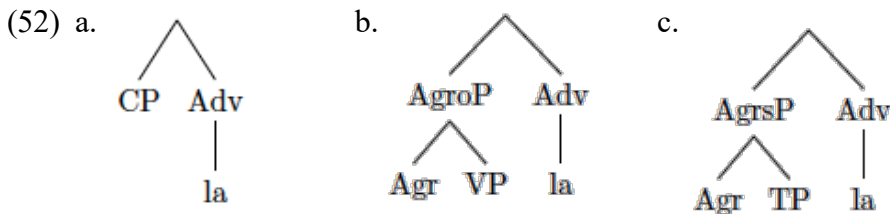
- (50) **Local presupposition:** destroying(e) & Theme(e,c)

Assertion: destroying(e) & Agent(e,m) & Theme(e,c)

Finally, Reading 3, (48c), carries the local presupposition that there is an event of car-destruction whose Agent is the man. The assertion is, then, that this event has actually occurred. In other words, prior to the utterance of (48), the common ground included an event of destruction whose Theme is the car and whose Agent is the man. Thus, all (48) does is assert that this event took place. These facts are summed up in (51).

(51) **Local presupposition:** destroying(e) & Agent(e,m) & Theme(e,c)
Assertion: occurred(e)

This ambiguity, Larson (2003) argues, has structural origins: to each reading corresponds a different position of the clausal determiner on the clausal spine. Reading 1 obtains when the clausal determiner is merged above CP, Reading 2 when it is merged above VP, and Reading 3 when it is merged above TP. These three configurations are schematized respectively in (52a), (52b) and (52c), reproduced from Larson (2003:78).²⁵

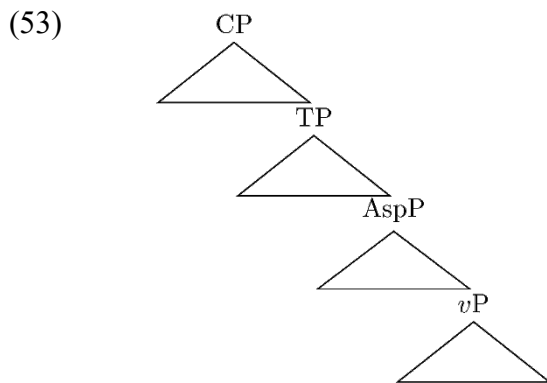


These data suggest that there is a transparent mapping between the content of the presupposition and the category of the clausal/event determiner's complement. When the clausal determiner takes CP as its complement, it encodes the fact that the proposition denoted by its complement belongs to the common ground. When it takes VP as its complement, and thus scopes over the verb and its object, it indicates that the subevent denoted by the VP belongs to the common ground. Finally, when it takes TP as its

²⁵ The representations in (52b) and (52c) feature the somewhat controversial AgrOP and AgrSP projections. This label is of little significance to the issue at hand. All that really matters in these representations is that the clausal determiner heads a functional projection above VP and TP in (52b) and (52c), respectively.

complement, thus scoping over the verb and both its subject and object, it signals the fact that the common ground includes an event whose participants are already known. These facts argue for a straightforward relation between the position of a clausal determiner and the interpretation of the clause it appears in. A similar proposal is made by Renans (2019) with respect to the position of the event determiner and the interpretation of Ga clefts. On the null hypothesis that this generalization holds across languages, it is thus crucial that we now establish the merge position of the clausal determiner in MC DWQs.

In order to achieve this objective, we should ideally rely on syntactic phenomena, resorting to interpretational facts as a last resort. Accordingly, I shall first consider the distribution of the clausal determiner with respect to adverbials. In line with standard assumptions, I take the basic architecture of the MC clausal spine to be as in (53).



The labels in this diagram are not meant to be read as projections, but rather as domains, each possibly comprised of multiple projections. The adverbials to be considered are those which occupy positions within the TP and AspP domains, which I will alternatively refer to collectively as the IP domain.

In line with Cinque (1999), I assume the existence of a Universal Hierarchy provided by UG.²⁶ Hence, the universal functional sequence, shown in (54), which dictates the rigid relative ordering of adverbials across the languages of the world. Following Cinque, I posit that adverbials are merged in the specifiers of those various functional

²⁶ Pollock (1989) provided the initial impetus for this line of research when he demonstrated to split InFP into two distinct functional layers (AgrP and TP).

projections.

- (54) [*frankly* Mood_{speech act} [*fortunately* Mood_{evaluative} [*allegedly* Mood_{evidential}
 [*probably* Mod_{epistemic} [*once* T(Past) [*then* T(Future) [*perhaps* Mood_{irrealis}
 [*necessarily* Mod_{necessity} [*possibly* Mod_{possibility} [*usually* Asp_{habitual} [*again*
 Asp_{repetitive(I)} [*often* Asp_{frequentative(I)} [*intentionally* Mood_{volitional} [*quickly*
 Asp_{celerative(I)} [*already* T(Anterior) [*no longer* Asp_{terminative} [*still* Asp_{continuative}
 [*always* Asp_{perfect(?)} [*just* Asp_{retrospective} [*soon* Asp_{proximative} [*briefly* Asp_{durative}
 [*characteristically(?)* Asp_{generic/progressive} [*almost* Asp_{prospective} [*completely*
 Asp_{completive(I)} [*tutto* Asp_{PICompletive} [*well* Voice [*fast/early* Asp_{celerative(II)}
 [*often* Asp_{frequentative(II)} [*completely* Asp_{Completive(II)}

Before looking specifically at DWQs, I shall first establish the distributional patterns of adverbials in MC declaratives, focusing on their position vis-à-vis the verb and its object. As regards low adverbials such as *souvan* ‘often’ and *bien* ‘well’, the observation is that, as illustrated in (55), they may either precede or follow both the verb and its object, but cannot intervene between them.

- (55) a. Jan ka (*souvan*) wè (**souvan*) manman ’y (*souvan*)
 John IMPF often see often mother 3SG often
 ‘John often sees his mother.’
- b. Jan (*bien*) fè (**bien*) travay li (*bien*)
 John well do well work 3SG well
 ‘John did his job well.’

Several conclusions can be drawn from these facts. First, the acceptability of low adverbials in pre-VP position suggests that Cinque’s hierarchy does apply to MC. Second, the fact that low adverbials cannot be sandwiched between the verb and its object is a hint that verb movement does not obtain in MC. Given this last observation, I argue that the post-VP position of low adverbials is derived by phrasal movement: a functional projection which contains the verb and its object raises past the low adverbials. For the sake of simplicity, I

equate this projection with VP in (56), a schematic representation of the derivation of (55b).²⁷

(56) [[_{VP} fè travay li] ... [bien ... t_{VP}]]

Let us now see what happens in sentences, such as those in (57), which contain two low adverbials. The first observation, illustrated by the contrast between (57a) and (57b), is that *bien* ‘well’ must necessarily follow *souvan* ‘often’, which conforms again with Cinque’s hierarchy where *souvan* c-commands *bien*. The second observation, which we can derive from (57c), is that the higher adverb, *souvan*, can appear in post-VP position while the lower adverb, *bien*, remains in pre-VP position, a reversal of the relative ordering of these two adverbials in (57a).

- (57) a. Jan ka souvan bien fè travay li
 John IMPF often well do job 3SG
 ‘John often does his job well.’
 b. *Jan ka bien souvan fè travay li
 c. Jan ka bien fè travay li souvan

To account for this last observation, I hypothesize, once again, that (56c) is derived by movement. As shown in (58), a functional projection which contains the lower adverb (*bien*), the verb and its object raises past the higher adverb (*souvan*).

(58) [[_{FP} bien fè travay li] ... [souvan ... t_{FP}]]

²⁷ One may legitimately wonder what motivates the movement of VP in (56). My answer to this question is admittedly on the speculative side, but I assume that some functional head F within the IP domain needs to check a [V] categorial feature, which triggers the movement of VP. In other words, this categorial feature would be endowed with an EPP feature. Of course, this raises the question of what happens when the VP remains in situ. The obvious answer is that F would, in these circumstances, lack the EPP-feature which triggers the raising of VP to its Spec. The argument is obviously circular, but it is nonetheless plausible. We simply have to assume that the verbal feature on V is not inherently associated with an EPP feature, but that it receives it at some point in the numeration.

Given these few remarks on adverbial distribution in declaratives, I am now able to demonstrate that the clausal determiner in MC DWQs is not merged in either a VP-internal position or some position between low adverbials and VP. Consider the contrasts in (59) and (60).

- (59) a. Ki sa Jan fè bien **an**?
 WH it John do well CD
 ‘What did John do well (given our shared knowledge that John did something well)?’
- b. *Ki sa Jan fè **a** bien?
- (60) a. Ki sa Jan ka bien fè souvan **an**?
 WH it John IMPF well do often CD
 ‘What does John often do well (given our shared knowledge that John often does something well)?’
- b. *Ki sa Jan ka bien fè **a** souvan?

The DWQ in (59) contains the low adverb *bien* ‘well’ in post-VP position, which presumably results from a derivation similar to (56). That the clausal determiner must follow the adverb indicates that it is not merged in a VP-internal position. Otherwise, it should have preceded, rather than follow, the adverb. As for the DWQ in (60), it contains two low adverbials in a configuration similar to (57c) and must therefore manifest a derivation analogous to (58). Thus, the fact that the clausal determiner must follow the higher adverb, *souvan*, demonstrates that the clausal determiner cannot be merged at the edge of the VP, i.e. in an intermediary position between the IP domain and the VP. Therefore, I propose that (59a) and (60a) are derived as in (61) and (62), respectively. (As reflected in the bracketing, I do not yet propose a position for the clausal determiner.)

(61) [Ki sa]_i [Jan ka [[_{VP} fè t_i] ... [bien t_{VP}]]] **an**?

(62) [Ki sa]_i [Jan ka [[_{FP} bien fè t_i] ... [souvan t_{FP}]]] **an**?

The intermediate summary is thus that the clausal determiner in MC DWQs differs from the one found in HC declaratives insofar as it cannot be merged inside or at the edge of the VP, which is consistent with the interpretation of DWQs. After all, MC DWQs do not have a reading where the presupposition concerns only the event and its Theme.

Nevertheless, if we take the HC data as an indication of what may obtain in MC, we are left with two configurations to consider: the clausal determiner may take as its complement either CP or TP. We shall start by investigating the latter of these two alternatives. Once more, the demonstration will rely on the distribution of the clausal determiner with respect to adverbials. This time, however, I will focus on the higher IP adverbials within Cinque’s functional hierarchy. Following the procedure set above, I shall start out by considering how these adverbials behave in declaratives before taking a look at DWQs.

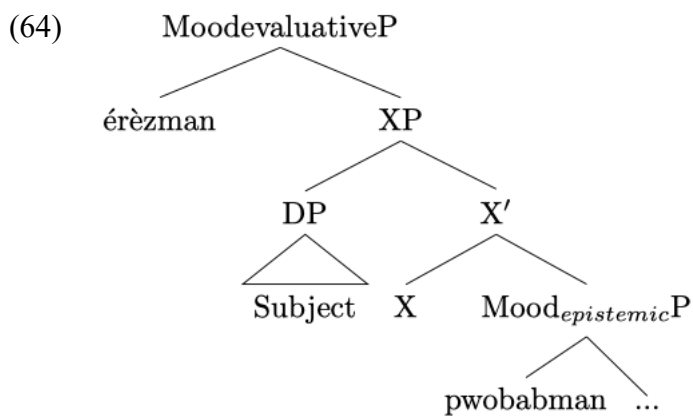
Following Cinque (1999), I hold that *pwobabman* ‘probably’ instantiates his $\text{ModP}_{\text{epistemic}}$, a projection he takes to be quite high in the IP domain. It is in fact the fourth highest functional projection within Cinque’s functional sequence. It is also a cutoff point for the position of the MC subject in the sense that that epistemic adverbials are the highest adverbials which can follow the subject. Higher adverbials – those hosted in $\text{Mod}_{\text{Speech act}}$, $\text{Mood}_{\text{evaluative}}$ and $\text{Mod}_{\text{evidential}}$ – must, on the contrary, all precede the subject. This is, for instance, the case with *érezman* ‘fortunately’, the instantiation of Cinque’s $\text{MoodP}_{\text{evaluative}}$.²⁸ These claims are substantiated by the data in (63).

- (63) a. (Pwobabman)Jan (pwobabman) ké ja fini travay li
 probably John probably WOLL already finish work 3SG
 (pwobabman)
 probably
 ‘John will probably have already finished his work.’

²⁸ The results are somewhat mixed when it comes to *sipozéman* ‘allegedly’, the lexicalization of Cinque’s (1999) $\text{Mood}_{\text{evidential}}$. I shall therefore leave this adverb aside.

- b. (Érezman) Jan (*érezman) ké ja fini travay li
 fortunately John fortunately WOLL already finish work 3SG
 (érezman)
 fortunately
 ‘Fortunately, John will have already finished his work.’

The above facts suggest that the MC subject can occupy a position higher than Cinque’s $\text{Mod}_{\text{epistemic}}$, but lower than his $\text{Mood}_{\text{evaluative}}$, as captured by the tree in (64).



More importantly, as attested in (63a), *pwobabman* can appear in sentence-final position. In line with my earlier proposals, I posit that this order is derived by movement.²⁹ As illustrated in (65), a functional projection which contains the subject, the verb, its object, and any intervening adverbials raises past the high adverb *pwobabman*.

- (65) [[FP Jan ké ja fini travay li] ... [*pwobabman* ... t_{FP}]]

Assuming that this account is on the right track, I am now able to exclude the hypothesis that the MC clausal determiner may, like its HC counterpart, occupy a position where it has immediate scope over AgrSP, i.e. the projection which hosts the subject. This follows from the fact, illustrated in (66), that the clausal determiner must follow the

²⁹ I assume that a similar derivation will also account for the sentence-final position of *érezman* ‘fortunately’ in (63b).

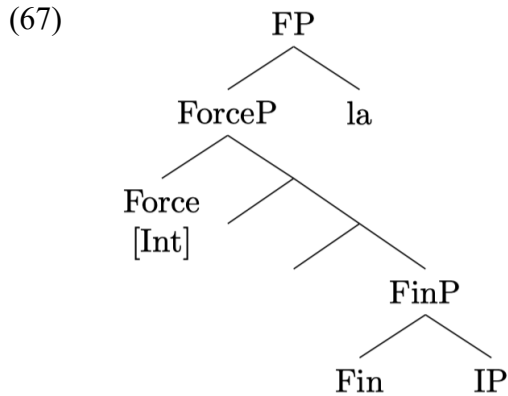
epistemic adverb in a DWQ.

- (66) a. Ki sa Jan ké ja fè pwobabman **an**?
WH it John WOLL already do probably CD
'What will John probably have already done (given our shared knowledge that John will probably have already done something)?'
- b. *Ki sa Jan ké ja fè **a** pwobabman?
- c. [Ki sa]_i [[_{FP} Jan ké ja fè t_i] ... [pwobabman ... t_{FP}]] **an**?

Placing the clausal determiner before the adverb, as in (66b), results in an ungrammatical sentence. Thus, I propose that the grammatical (66a) is derived as in (66c), where the clausal determiner is merged outside the functional projection which embeds the subject, the verb, its object, and any intervening adverbials. This rules out the configuration posited by Larson (2003) where the clausal determiner lexicalizes AgrS⁰, thus scoping over TP. That this alternative is excluded by the syntax is a welcome result of our investigation, as this confirms the interpretational facts. Indeed, Larson argues that merging the clausal determiner above TP triggers the presupposition that there is an event *e* whose Agent and Theme are known in common by the speech participants, and that the proffered content of the sentence is that *e* has indeed taken place. In MC DWQs, in contrast, the occurrence of an event is a given for the speech participants and therefore belongs to the common ground. Therefore, both the syntax of the clausal determiner and the interpretation of MC DWQs argue in favor of rejecting this hypothesis.

We are thus left with a single alternative, viz. that the clausal determiner is merged above CP. In other words, the remaining hypothesis to be considered is that the clausal determiner lexicalizes some functional head in the left periphery. Ideally, some form of syntactic confirmation would be welcome. Unfortunately, I do not know of any convincing test which would help us to determine with an acceptable degree of precision the position of the clausal determiner. Nonetheless, I would like to conjecture that the clausal determiner is merged above ForceP, the head of which is the locus of illocutionary force according to Rizzi (1997). Given the fact that the distribution of the MC clausal determiner is limited to interrogatives and that the fact that there may be a secondary speech act

associated with DWQs, it stands to reason that it should merge above ForceP. Sitting from such a position, it would have the ability to select a clause of the appropriate type.³⁰ The tree in (67) offered as a tree representation of this speculation.



In this representation, I assume that the functional projection headed by the clausal determiner is head-final. However, it may very well be that it is head-initial and that ForceP moves to its Spec. These two alternatives are equally viable. For the sake of convenience, I opt here for a head-final projection but this issue is not critical to the analysis I propose here.

At any rate, the hypothesis that the clausal determiner occupies a high position on the clausal spine finds some degree of validation in the interpretation of DWQs. Throughout this paper, I have argued that DWQs are subject to the condition that their input common ground must contain an antecedent proposition. This is highly reminiscent of Reading 1 of HC declaratives where the clausal determiner scopes over the entire CP.³¹

³⁰ Alternatively, given the fact that the clausal determiner's distribution is restricted to wh-interrogatives, it may be that it sits in some position lower than ForceP where it c-commands the locus of the [+wh] feature. Under the assumption that wh-phrases raise to Spec,FocP (Rizzi 1997, 2001), I take this to be Foc. At any rate, I hold that the clausal determiner sits in a relatively high position in the left periphery. Crucially, the interpretational and distributional facts presented in this chapter all militate against the view that it occupies some lower position from which it could enter a probe-goal relation with Force (cf. Bayer and Obenauer 2011 where it is argued German discourse particles are e-merged at the edge of vP).

³¹ There is obviously more that needs to be said about the difference between the HC and the MC high clausal determiners. For instance, in section 3.6 I show that they are not subject to the same definiteness constraints.

According to Larson (2003), in this configuration there is no local presupposition, instead the proposition denoted by the CP must be part of the input common ground. Moreover, the fact that the clausal determiner scopes over the whole IP by virtue of being in the left periphery is consistent with this requirement, as this would align with the assumption that IPs are proposition-denoting constituents (Kratzer 1998). Let us then settle for the provisional conclusion that the clausal determiner sits somewhere in the left periphery, probably above ForceP. Hopefully, future research will help us locate its merge position with greater accuracy. For now, let us take a closer look at the semantics of the clausal determiner.

3.5.3 The semantics of the clausal determiner in DWQs

To capture the semantics and pragmatics of DWQs, it is important that we propose an adequate denotation for the clausal determiner. In order to do so, I shall return once more to the parallelism between definite descriptions and DWQs.

The definite article *la*, which I shall refer to la_D to reflect its categorial status, has the following denotation:

$$(68) \quad \llbracket la_D \rrbracket = \lambda P. \iota xP(x)$$

Defined if x already belongs the universe of discourse

This is rather puzzling if we assume that they are similar in their syntax, notably their merge position. This, however, is an assumption I would like to challenge. The literature on the HC clausal determiner (Lefebvre 1992, 1998; Larson 2003) tends to determine its position on an interpretational basis. There is, however, very little in the form of distributional arguments, e.g. with respect to adverbials. It may thus very well turn out that HC does not have a clausal determiner per se, but rather an event determiner. If so, this determiner would then be merged inside the IP domain, rather than scope over it; we would then be able to better differentiate these two determiners.

An alternative account for the divergence between these determiners would be that the HC clausal determiner is in fact a marker of mirativity. This would find support in the translations of the HC examples, which all suggest that a certain type of event (or subpart of an event) is expected to occur. Crucially, this event appears to have no temporal and aspectual anchoring. In contrast, the MC clausal determiner presupposes a temporally situated state of affairs. More research is necessary before a firm conclusion can be drawn.

Undefined otherwise

This entry reflects the importance of the notions of uniqueness and familiarity in the analysis of definite descriptions. Following Pupa (2021), let us posit that UG provides for the feature [+DEF] that decomposes into the feature bundle {+Unique, +Familiar}. These two features, Pupa argues, belong to two different classes. The first class is characterized by its relevance to vericonditionality and includes the feature [+Unique], the source of the definite article's quantificational force. The second class, which includes the feature [+Familiar], has no impact on the truth conditions, but is of crucial import to the felicity conditions of the definite description. Let us then see how this translates into the study of DWQs.

If we take Pupa's (2021) proposal seriously, then the felicity conditions of DWQs are brought in by the [+Familiar] feature. This feature will specifically target the complement of the definite determiner; hence, the requirement for an antecedent proposition.

But what about the [+Unique] feature which Pupa argues is the other component of the [+DEF] feature bundle? If it too is part of the [+DEF] feature lexicalized by the clausal determiner, we would expect it to play a crucial role in the truth conditions of the DWQ. On the assumption that the HC clausal determiner is a quantificational adverb (Larson 2003), Pupa explains that it differs from the definite article insofar as it is a generalized quantifier which takes two arguments, rather than one. He thus proposes an anadic operator³² U which spells out the feature [+Unique]. Accordingly, $U\alpha(\varphi)(\psi)$ is to be interpreted as "something that uniquely instantiates φ instantiates ψ " (Pupa 2021:11). Pupa thus associates the HC clausal determiner with the denotation in (69) (Pupa's (13)). There should then be a unique event which possesses the properties denoted by f and g in this representation.

$$(69) \quad \lambda f.\lambda g. Ue(fe)(ge)$$

³² In other words, this operator does not have a specified number of arguments.

Now, according to Pupa, whether the HC determiner functions as either a definite article or a quantificational adverb is determined by the syntax. Pupa argues for the existence of two distinct category-defining heads which may combine with a [+DEF] feature. The first such head is *d*, which merges with [+DEF] to produce the definite article. The second head is *q*, which forms a clausal determiner when it merges with [+DEF]. This, of course, comes in addition to the fact that the definite article takes a nominal predicate as its lone argument, while the clausal determiner selects for two eventualities.

To illustrate the workings of the HC event determiner, let us reconsider (48), repeated here as (70).

- (70) Moun nan detwi machin nan **an**
 man DEF destroy car DEF CD
- a. ‘Actually, the man destroyed the car.’ (Reading 1)
- b. ‘The man destroyed the car, as we knew that the car would be destroyed.’
 (Reading 2)
- c. ‘The man destroyed the car, as we knew that the man would destroy the car.’
 (Reading 3)

I shall focus here on Readings 2 and 3 to illustrate Pupa’s approach. On Reading 2, the clausal determiner forces the following interpretation: the unique event that is an event of the car being destroyed is an event whose Agent is the man. This reading is subject to the additional felicity condition that the common ground should include the proposition that there is an event *e* such that *e* is a destroying event whose Theme is the car. On Reading 3, we get the following interpretation: the unique event that is an event of the car being destroyed and whose Agent is the man is an event that occurred. This time, the felicity condition is that the common ground must include the proposition that there is an event *e* such that *e* is a destroying event whose Theme is the car and whose agent is the man. Pupa’s analysis thus allows for a straightforward account of these HC declaratives.

Now, my analysis of the MC clausal determiner suggests that it takes a propositional argument, rather than an event argument. This, of course, should be reflected in its denotation. But, before proposing such a denotation, I would like to expound some

more on the notion of uniqueness. Pupa (2021) rightly notes that the notion of uniqueness is subsumed by that of exhaustiveness. It would in fact generally be preferable to speak of exhaustiveness, as this would allow for a straightforward account of the use of definite articles with non-singular nouns, viz. plural count nouns and mass nouns (Hawkins 1978:157-167). Let us then think of [+DEF] feature as the following feature bundle: {+Exhaustive, +Familiar}, which takes us one step closer to our objective.

Allow, however, for a final detour. Recall the earlier observation that the felicitous use of the clausal determiner in a MC DWQ requires that the common ground contain an antecedent proposition. As mentioned in section 3.3, from the notion of common ground we can derive that of context set, i.e. the set of possible worlds in which all the propositions in the common ground are true. This entails that the antecedent proposition of a DWQ must be true in all the possible worlds in the context set. That is, we may justifiably assume that the quantificational force of that presupposition originates in the [+Exhaustive] feature which enters into the makeup of the [+DEF] feature bundle of the definite article (Pupa 2021:11). Now, remember that questions, because they are payoff moves, do not affect the content of the common ground but impose structure on it. This is in line with Hamblin's (1973) view of questions as partitions of the context set – a view which Abusch (2010) makes even more explicit when she proposes that a question denotes a disjunction. The combination of all these ingredients lead me to the following proposal.

I hold that the MC clausal determiner takes possible worlds as arguments and imposes that every possible world denoted by a wh-question is a world where the antecedent proposition is true. Of course, because the wh-question does not modify the content of the common ground, this entails that the antecedent proposition is true in every world in the common set. This incidentally accounts for the unacceptability of *nothing*-type answers to DWQs, as there cannot be any world w' in the context set such that the antecedent proposition is false in w' .

Bringing all these considerations together, I am now able to propose (71) as a denotation for the MC clausal determiner, represented below as la_C .

$$(71) \quad \llbracket la_C \rrbracket = \lambda p. \lambda q. \text{Exh}(w').p(w')q(w'), \text{ where } p \text{ is a DWQ and } q \text{ its existential presupposition}$$

Defined if w' belongs to the context set
Undefined otherwise

What (71) says is basically that the disjunction denoted by the *wh*-question (i.e. the complement of the clausal determiner) and the antecedent proposition will be true in all the possible worlds in the context set. Consequently, a DWQ will prove infelicitous on any configuration in which the input context set contains at least a world w' such that the disjunction denoted by the *wh*-question is false in w' . This is very much in line with our previous observation that DWQs do not tolerate *nothing*-type answers. I take this to be a welcome result.

To summarize, in this section I have proposed that the semantics of the clausal determiner which appears in MC DWQs parallels the semantics of the homophonous definite article. More precisely, both are the lexicalization of the feature [+DEF], which may in fact be viewed as the feature bundle {+Exhaustive, +Familiar}. They only differ with respect to the type of arguments they select. The nominal definite article takes nominal predicates as its input, while the clausal determiner takes propositions.³³ As a result, when the latter is found in a DWQ, it imposes that the disjunction of propositions denoted by a *wh*-question is true in all the propositions in the latter's input context set. At any rate, this proposal is consistent with the view that the idiosyncratic properties of MC DWQs all follow from the presence of the clausal determiner. Let us now tackle the constraints on MC DWQs we identified in sections 3.4.1.2 and 3.4.1.3.

3.6 Accounting for the construction-specific constraints of MC DWQs

In section 3.4, I observed that MC DWQs are subject to two construction-specific constraints. The first of these stipulates that, barring the *wh*-fronted constituent, all overt

³³ I shall remain agnostic, however, as regards Pupa's (2021) proposal that the distinction between nominal determiners and their clausal/event counterparts lies in the categorizing head they associate with. Taking on this issue would lead me too far afield as it raises fundamental questions about the syntax-morphology interface.

NPs in a DWQ must be definite. I also noted that, for some speakers, the extraction of subjects is more constrained with intransitive verbs than with transitive ones.

Starting out with definiteness constraints, section 3.6.1 returns to Larson (2003) and his analysis of apparently similar constraints in HC declaratives. Section 3.6.2 proposes an alternative account based on information-structural considerations. Finally, section 3.6.3 investigates the constraints on the extraction of subjects of intransitives and shows it to derive from the analysis presented in section 3.6.2

3.6.1 Larson's (2003) agreement-based analysis of definiteness constraints on HC declaratives

As we saw earlier, HC is similar to MC to the extent that it too possesses a clausal/event determiner. That determiner, however, diverges from its MC counterpart insofar as it can appear in declaratives.³⁴ Our earlier discussion further highlighted the fact that such declaratives may be three-way ambiguous. This was illustrated in (48), repeated here as (72).

- (72) Moun nan detwi machin nan **an**
man DEF destroy car DEF CD
a. 'Actually, the man destroyed the car.'
b. 'The man destroyed the car, as we knew that the car would be destroyed.'
c. 'The man destroyed the car, as we knew the man would destroy the car.'

Interestingly, substituting the definite object for an indefinite, as in (73) (Larson's (9)), disallows reading (73b) but does not affect readings (73a) and (73c).

- (73) Moun nan detwi yon machin **an**
man DEF destroy INDEF car CD
a. 'Actually, the man a destroyed a car.'
b. #'The man destroyed a car, as we knew that a car would be destroyed.'

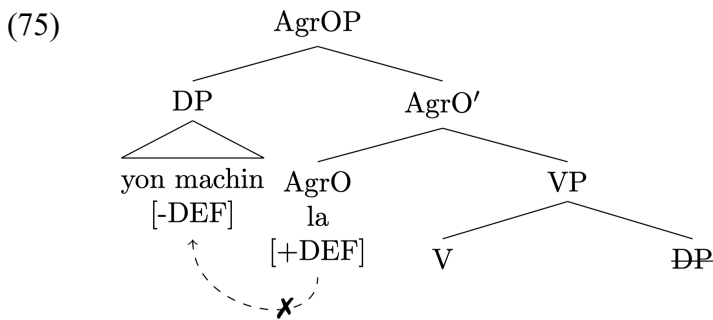
³⁴ Hence, my conjecture that the MC clausal determiner is base-generated above CP.

c. ‘The man destroyed a car, as we knew that the man would destroy a car.’

Similarly, if the definite subject is replaced with an indefinite, as in (74) (Larson’s (10)), then reading (74c) is ruled out, leaving readings (74a) and (74b) as the only two options.

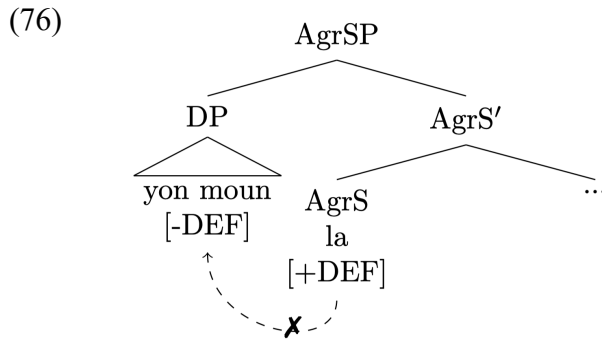
- (74) Yon moun detwi machin nan an
 INDEF man destroy car DEF CD
 a. ‘Actually, a man destroyed the car.’
 b. ‘A man destroyed the car, as we knew that the car would be destroyed.’
 c. #‘A man destroyed the car, as we knew that a man would destroy the car.’

To account for these data, building upon Lefebvre (1992), Larson (2003) argues that the clausal/event determiner, regardless of its position on the clausal spine, bears a [+DEF] feature which must be checked against a constituent in its specifier. The unacceptability of reading (73b) thus finds a straightforward explanation. Larson proposes that the event determiner lexicalizes AgrO⁰ and that its specifier hosts the indefinite object DP. As shown in (75), there is then a clash between the [+DEF] feature of the clausal determiner and the [-DEF] feature of the object.



Likewise, the unacceptability of reading (74c) can be accounted for if we assume that here, the clausal determiner spells out AgrS⁰. It must therefore agree in definiteness with the subject DP. If this condition is not met, an ungrammatical sentence obtains, as represented in (76). The corresponding reading will then be available only if the subject is definite. Given the pervasiveness of Spec-head agreement as an explanans in linguistic theory, this may be seen as an adequate account of the definiteness effects in HC

declaratives.



However, we have already established, on the basis of distributional and interpretational facts, that the (b) and (c) readings of (72)-(74) are not available in MC DWQs. This correlates with the unavailability of AgrS⁰ and AgrO⁰ as merge sites for the MC clausal determiner in these constructions. It can only be merged, I have proposed, in the left periphery. This also reflects the fact that DWQs receive an interpretation that is reminiscent of the (a) reading of (72)-(74), i.e. the clausal determiner refers to an earlier “utterance” in discourse. Given this similarity, it is fitting that we take a closer look at Larson’s account of this interpretation.

The first observation he makes is that there seems to be no definiteness constraint on the (a) reading of HC declaratives, as attested by the well-formedness of (72a), (73a) and (74a). These examples further show that this reading is compatible with either the subject or the object being indefinite. Although neither Larson (2003) nor Lefebvre (1992, 1998) give examples where the subject and the object are both indefinite, it appears that, as illustrated in (77) (adapted from Lefebvre 1998:108), the subject of an intransitive verb (here, the unaccusative *rive* ‘arrive’) may be indefinite. In this regard, HC declaratives are thus quite dissimilar from MC DWQs, since the HC clausal determiner does not appear to require the presence of a definite argument on its (a) reading.

- (77) Yon mounn rive a
 INDEF man arrive CD
 ‘Actually, a man arrived.’

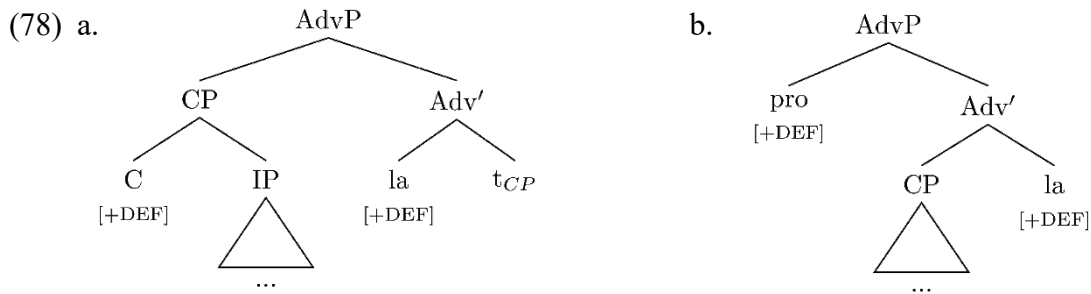
Let us nonetheless pursue our review of Larson’s (2003) analysis. As we saw, a

crucial component of his proposal is that the clausal/event determiner lexicalizes a [+DEF] feature, regardless of its position on the clausal spine. This feature, he argues, must be checked by a constituent in the determiner's specifier. We have already seen how this requirement is satisfied when the determiner lexicalizes either AgrS⁰ or AgrO⁰, but it remains to be determined how this is achieved when the clausal determiner is merged instead in the left periphery.

Although there is no easy answer to that question, Larson does venture some conjectures. The first alternative he considers is that the entire CP may raise to the specifier of the clausal determiner, as illustrated in (78a). He suggests that this CP is headed by a pronominal C which refers to the presupposed context situation associated with Reading 1.³⁵ On this view, just as any pronominal element, C would be associated with a [+DEF] feature, thus allowing it to check the [+DEF] feature borne by the clausal determiner.³⁶ Evidence for this movement-based analysis is, unfortunately, hard to find. The second alternative discussed by Larson (2003) is that the determiner's [+DEF] feature may be checked by a null pronoun externally merged in its specifier. This would be a contextual pronoun of sorts, which supposedly "refers to the context situations presupposed" (Larson 2003:86). That alternative is schematized in (78b), but note that here again, evidence is not easily adduced for the existence of this empty category.

³⁵ Although this is not explicitly stated, Larson (2003) seems to assume that definiteness can only be associated with nominals. It is therefore crucial for him that the complementizer be treated as a pronominal element. However, as mentioned in section 3.5.1, there is a vast literature which suggests that definiteness is not inherently nominal. We may then dispense with Larson's conjecture that C is pronominal. We may instead surmise that a CP will presuppose a context situation when it is headed by a [+DEF] complementizer. I do concur, however, with Larson in assuming that on Reading 1, the clausal determiner cannot spell out AgrS⁰. As a matter of fact, that configuration, which corresponds with Reading 3, does not carry the same presuppositions as Reading 2. This difference should quite naturally be reflected on a structural level, hence Larson's proposal.

³⁶ Recall that Larson (2003) analyzes the HC clausal as a quantificational adverb, hence the categorial labels in (78).



Which one of these two options should we choose? I do not have a definite answer, but I would like to submit the following comments. To begin with, the first analysis in (78a) is somewhat suspicious, as it involves complement-to-specifier movement, a violation of anti-locality (Grohmann 2003; Abels 2003; Kayne 2005). There are certainly ways of circumventing this obstacle (e.g. by revising the position of CP with respect to the clausal determiner), but these are hard to motivate on independent grounds. The second analysis, for its part, hinges on the postulate of an abstract pronoun whose motivation is not entirely warranted. This does not mean that either proposal should be rejected out of hand, but they cannot be wholly embraced either. We should also try to assess the applicability of both hypotheses to the study of MC DWQs, our topic of interest, and this shall be done in section 3.6.2.

To sum up, Larson (2003) argues that the definiteness constraints in HC declaratives derive from syntactic considerations, namely Spec-head agreement between a DP and the clausal/event determiner. While this proposal offers a straightforward account of the (b) and (c) readings of (72)-(74), it is somewhat less successful in dealing with the (a) readings. Yet, only the latter reading is of interest to the study of MC DWQs. In the next section I argue that Spec-head agreement alone cannot account for the definiteness constraints of MC DWQs. I opt instead for an analysis based on information structure.

3.6.2 An information-structure-based analysis of definiteness constraints in MC DWQs

As mentioned above, when the HC determiner occupies a position in the left periphery, it triggers a reading which resembles the one associated with MC DWQs: the speaker refers to a proposition which is already known to both him and his interlocutors and which, therefore, belongs to the common ground. However, as we saw in the previous section, the

parallelism between the two constructions is an imperfect one.

In section 3.4.1.3, I observed that MC DWQs are subject to the definiteness constraints encapsulated in (24), repeated here as (79).

(79) **Definiteness constraints in MC DWQs:**

All overt noun phrases in a DWQ, except for the *wh*-phrase, must be definite.

Section 3.6.1 established that these constraints do not apply to HC declaratives, as they may contain indefinite arguments. Larson (2003) assumes that, when merged in the left periphery, the HC clausal determiner checks its [+DEF] feature against either the entire CP (via a pronominal C head) or an abstract pronoun. It is then predicted that definiteness constraints will be limited to that constituent, rather than spread to every overt noun phrase. This stands in contrast with MC DWQs where all the overt noun phrases must be definite, as formulated in (79). It then becomes questionable whether Larson's proposal, and the assumptions it is built around, can account for the MC constraints.

As a matter of fact, it is quite easy to see that Larson's (2003) conjectures do not straightforwardly extend to MC DWQs. In these constructions, the definiteness constraints concern all overt DPs, rather than any single one of them. Furthermore, the syntactic analysis sketched in section 3.5.2 makes it clear that the constituent which sits in the specifier of the clausal determiner cannot be an overt DP, and much less several of them. How are we then to account for the obligatory definiteness of not one, but all overt DPs in a DWQ? Sure, one may conjecture that Spec-head agreement takes place at LF, but I do not see any independent motivation for postulating covert movement of all the DPs in a DWQ. Not to mention the fact that this constraint also applies to those DPs which are embedded in adjuncts and that these DPs may not necessarily be in the same phase as matrix C (Chomsky 2001, 2008). An alternative may then be to posit that the clausal determiner enters a multiple Agree relationship with all the DPs in the DWQ, but this too is at best a stipulation, rather than an explanation.

Moreover, postulating that the entire CP occupies the specifier of the clausal determiner does not in itself account for the fact that all overt DPs are subjected to this constraint. If the definiteness feature of a CP is inherited from C, it is not clear why

definiteness should spread to all DPs, rather than just remain in C. As for substituting CP with an abstract pronoun in the Specifier of the clausal determiner, I cannot see how this would fare any better as an explanation for (79). Quite generally, it seems to me that Spec-head agreement alone cannot account for this property of MC DWQs. I will therefore propose an analysis which draws on the information-structural characteristics of these constructions.

Throughout this paper I have insisted on the fact that DWQs are licensed by an antecedent proposition. In doing so, I have shown that a proper analysis of DWQs requires that we go beyond the level of the sentence to that of discourse. Following Heim (1982), I have argued that definiteness, construed in terms of familiarity/anaphoricity, is key to the understanding of these constructions. Extending the Novelty/Familiarity Condition to propositions, I have claimed that reference to an antecedent proposition is what triggers the use of a DWQ. However, up to now, I have focused on antecedent propositions as a whole. In what follows, I would like to shift the discussion to the bits and pieces which make up the antecedent propositions, with a special focus on the individuals which appear in its semantic representation.³⁷ I will argue that these individuals qua discourse referents must be referred to with definite DPs because of the interaction between information structure and definiteness.

To get a better grasp of these ideas, let us consider Erteschik-Shir (2014:24) where it is argued that information structure can best account for the well-known (in)definiteness constraints associated with topicalization and existentials. This proposal relies on some basic assumptions. The first of these is that every sentence must obligatorily contain at least one topic, since “topics are what the sentence is ‘about’ and the truth value of a sentence is determined with respect to them” (Erteschik-Shir 2014:24). This requirement, she claims, explains the contrast between the sentences in (80) and those in (81) (her (6) and (7)), where the subject of the individual-level predicate is definite or indefinite, respectively.

(80) a. The little boy is intelligent.

³⁷ I shall leave aside other semantic primitives, namely situations, events and possible worlds, focusing instead on individuals.

- b. He is intelligent.
 - c. John is intelligent.
- (81) a. #A little boy is intelligent.
- b. Dogs/a dog are/is intelligent. (only generic)
 - c. A student I know is intelligent. (specific)
 - d. A DOG is intelligent, a CAT is not. (contrastive)
 - e. TWO/SOME (of the) students are intelligent. (partitive)

The difference between these two sets of sentences follows from the fact that definites, unlike indefinites, will always qualify as adequate topics. Indefinites, on the other hand, cannot function as such, unless they receive some particular interpretation, as in (77b-e). This reflects the fact, she argues, that only “given” discourse referents will qualify as possible topics.

To support this claim, Erteschik-Shir proposes a theory of information structure rooted in file card semantics (Reinhart 1981). She holds that the common ground comprises file cards which are each associated with a particular discourse referent. Topics will be recruited among these various discourse referents. In other words, selecting the topic of a sentence reduces to selecting a file card in the common ground. But there is more to it, as not all candidate cards are equal with respect to that process. The set of available file cards is structured in such a way that it forms a metaphoric stack. Accordingly, some cards will be at the top of the stack and others at the bottom. In Erteschik-Shir’s terminology, a card which is brought to the top of the stack is said to be focused. The speaker focuses a card when he directs his interlocutor’s attention to it. Focused cards are, as we shall see below, prime candidates for subsequent topichood.

For the time being, let us reflect on (82), Erteschik-Shir’s (2014:26) definition of focus.

- (82) The Focus of a sentence S = the (intension of a) constituent c of S which the speaker intends to direct the attention of his/her hearer(s) to, by uttering S.

According to this definition, the focus of a sentence is not necessarily an individual-

denoting constituent. It may, for example, be a VP as in (83a,b). Erteschik-Shir's theory of information structure thus imposes that every sentence contain (at least) one topic and one focus.

- (83) a. I_{top} [know a student]_{foc}
b. She_{top} [is intelligent]_{foc}

In (83a), the speaker herself constitutes the topic of the sentence and the VP its focus. Within that VP, we find the indefinite DP *a student*. Consequently, the discourse referent associated with that DP will be moved to the top of the stack, i.e. focused in Erteschik-Shir's terminology. By virtue of having been focused, it will then qualify as a viable topic, as seen in (83b). Crucially, that discourse referent can no longer be referred to with an indefinite DP. It must instead be referred to with a definite – here, a pronoun. Indeed, it would be markedly odd if, rather than (83b), the speaker followed after (83a) with *a student is intelligent*, while referring to the same student. But why should it be so?

Recall Heim (1982), where it is argued that indefinites introduce new discourse referents, while definites refer to given discourse referents. Therefore, by using an indefinite, the speaker introduces a new file card into the common ground. On the other hand, when she uses a definite, she draws the hearer's attention to an old file card. Now, given Erteschik-Shir's (2014) proposal that candidate topics are restricted to the set of focused file cards already present in the common ground, it becomes clear why an indefinite DP will not provide a satisfactory topic: indefinite DPs introduce new file cards, and new file cards cannot function as topics. Various definiteness effects then arguably find their origin in the exigencies of information structure.

For instance, Erteschik-Shir (2014) argues that the definiteness effects found in existentials receive a straightforward account if we hold that every sentence should contain (at least) one topic and one focus. This seems to be contradicted by existentials such as (84a), where it would appear that we are in the presence ofthetic sentences, i.e. "all-focus sentence[s]" (Erteschik-Shir 2014:44). They would then violate the constraints on information structure. This violation, however, is only apparent, because such sentences contain a stage-level predicate. A stage-level predicate, Erteschik-Shir notes, introduces a

stage topic, whose contribution is to “[indicate] the spatio-temporal parameters of the sentence (the here-and-now of the discourse)” (Erteschik-Shir 2014:25).³⁸ Stage topics are not necessarily overt. When they are not, they are contextually recoverable. On this assumption, the existential in (84a) does in fact contain a topic – the stage topic. Hence the representation in (80b). ((84) is an adaptation of Erteschik-Shir’s (48).)

- (84) a. There is a/*the dog in my garden.
 b. (s)Top_{top} [There is a/*the dog in my garden]_{loc}

The sentence is therefore predicated of a stage topic, which is deficient insofar as one of its coordinates is undefined. The missing coordinate in (84) is the location. Because that stage is incomplete, (84) may be interpreted as the definition of a “new” stage. To each new stage, Erteschik-Shir claims, must correspond a new set of discourse referents. Old discourse referents – associated with definite DPs by virtue of the Novelty/Familiarity Condition – will therefore be excluded from existential sentences, as they already have spatio-temporal parameters of their own. This requirement, I propose, is the main source of the definiteness constraints found in MC DWQs.

In section 3.4.2, I argued extensively that a DWQ will be licensed by an antecedent proposition. I proposed that the antecedent proposition is in fact an existential proposition. Erteschik-Shir’s analysis of existentials can therefore help us account for the definiteness constraints of DWQs. For the sake of concreteness, let us consider the toy DWQ in (85a), whose antecedent proposition is given in plain English in (85b).

- (85) a. Ki sa i krazé a?
 WH it 3SG break CD
 ‘What did he break (given our shared knowledge that he broke something)?’
 b. There is a thing that he broke.
 c. sTop_{top} [There is a thing that he broke]_{loc}

Following Erteschik-Shir, (85b) is associated with the information structure in (85c). The

³⁸ See Kratzer (1989, 1995) and Erteschik-Shir (1997) for earlier formulations of these observations.

antecedent proposition may then be viewed as an all-focus sentence predicated of a stage topic. Each discourse referent included in that all-focus sentence will be associated with a new file card. In compliance with the Novelty/Familiarity Condition, subsequent reference to these referents will, however, require the obligatory use of a definite DP. Unsurprisingly, all obligatory arguments of the verb contained in the antecedent proposition will perforce be definite when used in the DWQ. By way of illustration, consider (86), where the subject of a transitive verb is extracted.

- (86) a. Ki moun ki krazé vaz la karéman **an**?
 WH person COMP break vase DEF downright CD
 ‘Who downright broke the vase (given our shared knowledge that somebody downright broke the vase)?’
- b. *Ki moun ki krazé an vaz karéman **an**?
 WH person COMP break INDEF vase downright CD
 ‘Who downright broke the base (given our shared knowledge that somebody downright broke a vase)?’
- c. There is a person who downright broke a/the vase.
- d. sTop_{top} [There is a person who downright broke a/the vase]_{loc}

Here, in compliance with (79), we see that the object DP must be definite, as in (86a). Substituting this DP with an indefinite, as in (86b), produces an ungrammatical sentence. What is interesting here is that the DWQ in (86a) may take as its antecedent proposition (86c) where the embedded object DP may be either definite or indefinite.³⁹ Only the latter case, however, is of crucial importance to the present discussion. As a matter of fact, (86c) is associated with the information structure represented in (86d), where the focused

³⁹ This apparently contradicts the requirement that the focused constituent of an existential proposition should only include novel entities. However, please note that the definite DP in (86c) is embedded in an indefinite DP.

constituent may include the indefinite DP *a vase*. Its referent will thus be associated with a new file card and subsequent reference to it can only be achieved by using a definite DP. Hence the contrast between (86a) and (86b). I take these data as sufficient evidence that information structure is what accounts for the definiteness constraints imposed on argument DPs in MC DWQs.⁴⁰

As for adjuncts, we have seen that they too must be definite. I argue that the explanation for this constraint is somewhat different from the one I have proposed for arguments. Here, I would like to point to a key ingredient of Erteschik-Shir's analysis – the topic of an existential is a stage whose spatio-temporal parameters are provided by the context. Topics, as we have seen, cannot be new discourse referents. Therefore, the stage topic must already be associated with a file card. That file card, I assume, will include at the very least those spatio-temporal parameters of the stage which are provided by the context. By hypothesis, those spatio-temporal parameters include the adjuncts which may appear in a DWQ. Adjuncts should thus not only be included on the file card of the associated stage, but they should also each be given a file card of their own. Subsequent reference to these will then naturally require the use of a definite. Information structure, as captured by Erteschik-Shir's theory, will therefore force the use of definite noun phrases in a DWQ, in both argument and adjunct positions.

In summary, this section has shown that Spec-head agreement alone cannot account for the definiteness constraints of DWQs. I have therefore proposed an analysis based on Erteschik-Shir (2014) and her application of file card semantics (Reinhart 1981). The fundamental ingredient of my proposal is that DWQs are necessarily associated with an antecedent existential proposition, which introduce new discourse referents into the common ground. Further reference to these, as in a DWQ, must then be done through a definite noun phrase (Heim 1982). This, I have argued, takes care of the definiteness constraints which apply to the arguments in a DWQ. As for adjuncts, I have suggested that their definiteness follows from their presence in the file card associated with the stage topic of the antecedent existential proposition. Let us now consider why the extraction of

⁴⁰ Anne Zribi-Hertz (p.c.) makes the interesting suggestion that the clausal determiner acts as an anchor to the context. This is very much what I have in mind. By marking reference to the antecedent proposition, the clausal determiner makes indirect reference to the stage topic, and thus to the context.

subjects of intransitives, as opposed to those of transitives, produces degraded sentences for a subset of my consultants.

3.6.3 Constraints on the extraction of the subjects of intransitives

In section 3.4.1.3, I showed that MC DWQs are subject to an additional constraint for a subset of my consultants. For these speakers, extracting the subject of an intransitive verb – as opposed to that of a transitive verb – yields degraded sentences.

To illustrate the configuration under discussion, observe again (13), repeated here as (87).

- (87) a. (?)Ki moun ki palé a?
WH person COMP speak CD
‘Who spoke (given our shared knowledge that somebody spoke)?’
- b. (?)Ki moun ki vini a?
WH person COMP come CD
‘Who came (given our shared knowledge that somebody came)?’

For this particular subset of speakers, a DWQ will thus be judged somewhat ungrammatical when it involves the extraction of the subject of either an unergative, as in (87a), or of an unaccusative in (87b). The extraction of the subject of a transitive, in contrast, does not pose any problem to any of my consultants. This configuration is illustrated in (18a), repeated here as (88).

- (88) Ki moun ki enmen Mari a?
WH personne COMP like Mary CD
‘Who likes Mary (given our shared knowledge that somebody likes Mary)?’

How we are to make sense of this contrast?

One might be tempted to venture a structural account. I believe, however, that this is a dead end. Consider, for instance, the proposal that the ill-formedness of (87a,b) stems

from the absence of an object. An obvious rebuttal of this proposal is that the subjects of unaccusatives are first-merged in a VP-internal position, just like the objects of transitive verbs. From a purely syntactic point of view, then, it would be incongruous that (87a) should be ill-formed while (88) is completely grammatical, since they both contain a DP in object position at some stage in their derivation. It would be just as baffling why (87b) should be ungrammatical when (88) is not. In both sentences, the subject is introduced in Spec,vP. There is no a priori reason why the presence of an object should affect the extraction of the subject from this position. One might then be led to revise the initial hypothesis by claiming this time that the ungrammaticality of (87a,b) is a result of the absence of an *overt* object. However, this revised hypothesis is equally untenable. On the standard assumption that copy deletion is a PF phenomenon, it would be very hard to understand why the absence of an overt object should have an adverse effect on the syntactic derivation of (87a) or its interpretation at LF. I am also at a loss to think of any phonological phenomenon in MC which could undermine the well-formedness of (87a,b) at PF. I am also not aware of any semantic factor which would account for the data. To make matters worse, it appears that there is nothing inherent to unergatives and/or unaccusatives which prevents them from appearing in DWQs. As a matter of fact, the sentences in (89a,b) are perfectly fine although they contain an unergative and an unaccusative, respectively.

- (89) a. Ki koté Jan dòmi yè a?
 WH place John sleep yesterday CD
 ‘Where did John sleep yesterday (given our shared knowledge that John slept somewhere yesterday)?’
- b. Ki manniè Jan vini a?
 WH manner John come CD
 ‘How did John come (given our shared knowledge that John came in some way)?’

These data add to the puzzle of why (87a,b) should be degraded at all. I therefore propose an alternate account which builds on the theory of information structure presented in

section 3.6.2.

As an initial step in my argumentation, I would like to return to the earlier hypothesis that the ungrammaticality of (87a,b) follows from the absence of an object. As we have seen, this proposal is untenable in its present form. However, I believe that the underlying intuition is not entirely ill-founded. As a matter of fact, the outstanding characteristic of (87a,b) is the presence of a single DP. This, I argue, is the critical factor which accounts for the ill-formedness of these sentences. To prove my point, consider the fact that there is nothing inherently wrong with the extraction of the subject of an intransitive verb in a DWQ. Provided a definite adjunct is added, a licit DWQ will obtain, as evidenced in (90).

- (90) a. Ki moun ki dòmi bò 'w la?
WH person COMP sleep next.to 2SG CD
'Who slept next to you (given our shared knowledge that someone slept next to you)?'
- b. Ki moun ki vini yè a?
WH person COMP come yesterday CD
'Who came yesterday (given our shared knowledge that someone came yesterday)?'

In (90a), the subject of the unergative verb *dòmi* 'sleep' is successfully extracted owing to the presence of the definite adjunct. Likewise, in (90b), the extraction of the subject of the unaccusative *come* 'venir' is made licit by the presence of a definite adjunct. I take these facts as evidence for the revised hypothesis that the ill-formedness of (87a,b) is a consequence of the presence of a single DP. I shall, however, reformulate this as the logically equivalent proposal that the crucial factor which accounts for the ungrammaticality of these examples is the absence of other DPs in the DWQ.⁴¹ Assuming that this description is true to the facts, we still need to determine why there should be such

⁴¹ Of course, these DPs should be definite in accord with the definiteness constraints analyzed in section 3.6.2.

a constraint.

To answer this question, we need to return to the definiteness constraints described in section 3.6.2. To account for these, I recruited the approach to information structure developed in Erteschik-Shir (2014) and suggested that these constraints originate in the fact that DWQs require the presence of an antecedent proposition in the common ground. This exigency implies that all free variables in the antecedent proposition must appear as definite DPs in the DWQ, since each of these will be associated with an existing file card. However, this does not entail that the antecedent proposition must contain free variables. For most of my informants, this appears to be true. However, for a minority of them, it is not enough that the common ground includes an antecedent proposition. For these speakers, it is in fact necessary that the antecedent proposition includes at least one free variable. This free variable may be either an argument or an adjunct. The latter option is, of course, the only one available when the interrogated constituent is the subject of an intransitive verb. When the verb is transitive instead, the free variable can be either an argument or an adjunct. Of course, this free variable, owing to its prior introduction in the common ground through the antecedent proposition, will be expressed as a definite DP in the DWQ. We can then make sense of the contrast between the ungrammatical (87a,b) and the well-formed (90a,b) which only differ with respect to the presence/absence of a definite adjunct. But why should there be such a constraint?

To answer this question, I propose that we look more closely at (87b). I assume that the antecedent proposition associated with this DWQ has the form given in (91a).

- (91) a. There is a person x s.t. x came
b. $s\text{Top}_{\text{top}}$ [There is a person x s.t. x came] $_{\text{foc}}$

In line with the analysis I proposed in section 3.6.2, I hold that the antecedent proposition is associated with the information structure represented in (91b). That is, I assume that the topic in the antecedent proposition is a stage topic. The focus expresses that, within the spatio-temporal coordinates referenced by the stage topic, there is a person x such that x came. Thus, no reference is made to any other free variable in the focused constituent of the antecedent proposition. Now, I would like to conjecture that the reason why some

speakers find (83a) to be degraded is a matter of recoverability. Recall that, according to Erteschik-Shir (2014), the stage topic, when it is covert, is usually recoverable from the context. However, she also argues that the stage topic of an existential sentence is deficient insofar as the spatio-temporal coordinates it refers to are incomplete. This deficiency is usually overcome by the information contained in the focused constituent of an existential sentence. For instance, in the existential sentence *there is a man in the garden*, the spatial coordinate of the stage topic is provided by the PP *in the garden* contained in the focus. I would like to argue that, for the subset of speakers I have been discussing, the ill-formedness of (87b) can be traced to the fact that its antecedent proposition does not solve the deficiency of the associated stage topic. In other words, the focus in (91b) fails to provide the missing coordinate of the stage topic. It may then be that the stage topic is unrecoverable for the group of speakers concerned. On this view, the ungrammaticality of (87b) would follow from the unsolved deficiency of the stage topic associated with the antecedent proposition.

This conjecture finds support in (90a,b), where the simple addition of a definite adjunct suffices to license the extraction of the subject of an intransitive. Take, for instance, the DWQ (90b), whose antecedent proposition is as in (92a).

- (92) a. There is a person x s.t. x came yesterday
 b. $s_{\text{Top}_{\text{top}}}$ [There is someone who came yesterday] $_{\text{foc}}$

The information structure of this proposition, given in (92b), is such that the focus provides the hearer with a temporal coordinate which facilitates the recovery of the stage topic. This stands in contrast with (87b) where no such coordinate is provided. This supports the conjecture that the unacceptability of the DWQs in (87a,b) is tied to the unsolved deficiency of the stage topic in their antecedent propositions.

As for those speakers who accept (87a,b) as completely grammatical, I postulate that the deficiency of the stage topic of the associated antecedent propositions is overcome through accommodation. The missing spatio-temporal coordinates will be recovered by, for instance, drawing on linguistic and extralinguistic cues that may help in the identification of these coordinates. Those speakers who view (87a,b) as ill-formed appear

to be more reluctant to go beyond the linguistic evidence provided by the antecedent proposition. This proposal, I must admit, is best seen as a conjecture. It does, however, make the prediction that the acceptability of sentences such as (87a,b) should improve for all speakers if the context, linguistic and extralinguistic, is rich enough to provide the speech participants with sufficient cues to solve the deficiency of the stage topic in the antecedent proposition of a DWQ. Testing out this hypothesis must unfortunately be left out for further research.⁴²

To sum up, drawing once more on Erteschik-Shir (2014), I have suggested that the inability to recover the missing spatio-temporal coordinates of the deficient stage topic of the antecedent proposition is what causes the degradedness of DWQs such as (87a,b) for some speakers. I have attributed the variation in the acceptability judgments of my consultants to their greater or lesser willingness to accommodate. The prediction, untested at this stage, is that the richer context, the more likely it is that sentences such as (87a,b) are deemed acceptable. This finds initial support in the fact that adding a definite adjunct to a sentence such (87a,b) suffices to render the extraction of the subject of an intransitive acceptable.

In this section I have argued that definiteness, construed in terms of familiarity/anaphoricity, plays a crucial role in MC DWQs. We may then distinguish between indefinite and definite clauses. A definite clause will then be characterized by the fact that the proposition it denotes (or a subpart of it) has already been introduced into the common ground prior to its utterance. This is the situation which obtains in the case of MC DWQs, as their felicitous utterance requires that an antecedent proposition is in the input common ground. This property, I argue, must be attributed to the clausal determiner present in DWQs. Structurally, I have shown that the latter is merged in the left periphery, probably above ForceP. Morphologically, it shares the same exponent as the nominal definite article. Semantically, it stands to reason that in both cases, we are in fact dealing with the spell-out of a [+DEF] feature, which can further be split into a [+Unique] and a [+Familiar]

⁴² This leads me to postulate once more that a corpus study of spontaneous interactions might prove very useful here insofar as it could help achieve a more complete description of the types of contexts which license DWQs and how these will impact the recoverability of the stage topic of DWQs such as (87a,b).

feature (Pupa 2021). The latter [+Familiar] feature is responsible for the felicity conditions of MC DWQs, viz. the requirement that an antecedent proposition be part of the common ground. This characteristic, in combination with the properties of information structure described in Erteschik-Shir (2014), imposes that all overt noun phrases in a DWQ be definite, irrespective of their status as arguments or adjuncts. These same ingredients can also be recruited to account for the fact that some speakers do not allow for the extraction of the subject of an intransitive verb in a DWQ, unless there is an overt definite adjunct. This, I hypothesize, results from the speakers' varying degree of willingness to accommodate for the deficiency of the stage topic introduced in the antecedent proposition. An exhaustive exploration of this conjecture must be left for further research. In the meantime, let us now consider whether DWQ-like questions are found in other languages.

3.7 DWQs in other languages

So far, the focus has been on MC, in which there are two types of wh-questions (DWQs and IWQs) which differ in their licensing conditions. DWQs, as we have seen, require the presence of an antecedent proposition in the input common ground. What remains to be determined is whether this distinction obtains in other languages. In section 3.7.1, I will briefly review Pires and Taylor (2007) where it is shown that both English and Brazilian Portuguese possess a set of wh-questions which may be said to depend on certain properties of the common ground for their licensing. Then, in section 3.7.2, I take a brief look at the interaction of discourse particles and wh-questions in German and French.

3.7.1 Insights from Pires and Taylor (2007)

In light of data described by Pires and Taylor (2007), I hold that the distinction between DWQs and IWQs is also found in English and Brazilian Portuguese (BP). A caveat is in order, however. The similarities between MC, on the one hand, and English and BP, on the other, are limited to their pragmatics. All three languages distinguish between questions which rely on certain properties of the input common ground for their licensing and questions which do not. How this distinction is linguistically encoded, however, depends on the language considered. English and BP DWQ-like questions are

characterized by the wh-phrase remaining in situ. These languages' IWQ-like questions, on the other hand, require obligatory wh-fronting. The main takeaway from this section, therefore, is that MC is not alone in distinguishing between DWQ- and IWQ-like questions.

In support of this claim, consider the English and BP data which Pires and Taylor (2007) bring to light. According to them, both languages possess a class of wh-in situ questions which need to be distinguished from echo questions. Although they are subject to finer distinctions, the questions which belong to this class are all characterized by the fact that their felicitous use depends on the common ground meeting certain requirements. By way of illustration, let us take a look at (93)-(96), all taken from Pires and Taylor (2007:4-5).⁴³

(93) Specific-Qs

- a. A: I made desserts.
- b. B: You made [what ↑kind of desserts↓]?
- c. B: Você fez [que ↑tipo de sobremesa↓]?

(94) Expect-Qs

- a. B. Attorney: Tell me what happened on January 1st, 2005 at 4 pm.
 B: Você pode dizer o que aconteceu no dia 1^o de janeiro de 2005, às 4 da tarde.
 A. Defendant: I was driving along Andrews Avenue.
 Eu estava dirigindo na Avenida dos Andradas.
- b. B. Attorney: And you were driving which↑ direction↓?
 B: E você estava dirigindo em que↑ direção↓?

(95) Expect-Qs

- a. A [employee]: I made different kinds of desserts.
- b. B [manager]: So, you made [how many cookies↓]?
- c. B: (E) você fez [quantos biscoitos↓]?

⁴³ Upward and downward arrows represent the intonational contour of these questions.

(96) Ref-Qs

A: I did not sell those strange pictures.

A: Eu não vendi aquelas pinturas estranhas.

B: You didn't sell what↑↓ strange pictures↓?

*H-L

B: Você não vendeu que↑↓ pinturas estranhas↓?

English and BP DWQ-like questions divide into three subclasses. The first of these, illustrated in (93), is the class of Specific-Q(uestion)s, which are defined by the speaker asking his interlocutor to be more specific with respect to an already established referent. The second subclass, exemplified in (94) and (95), is that of Expect-Q(uestions). They are mainly used when further questioning is expected, as in (94) where A and B are on opposite sides of the witness stand. In the same vein, (95) is uttered in a context where Speakers A and B both work at a bakery. In this context, it is expected of A, the employee, that there will be some cookies in the set of desserts that he has made. Finally, (96) is an illustration of Ref(erence)-Questions, where the speaker “ask[s] for a paraphrase or repetition of an immediately prior antecedent” (Pires and Taylor 2007:4).⁴⁴ There are, then, nuances between these various subclasses of questions, but they all share some form of dependence on properties of the input common ground.

To be more specific, Pires and Taylor (2007) argue that these questions share the requirement that the common ground contain a certain presupposition. For instance, utterance (93a) licenses the Specific-Qs in (93b,c) by introducing the proposition that there is at least one type *x* of desserts such that A made *x*. Needless to say, this closely resembles MC DWQs. The parallelism is reinforced by the fact that these various types of English and BP in-situ wh-questions share with MC DWQs the property that they cannot be uttered out blue. On the other hand, they differ from MC DWQs in their compatibility with *nothing*-type answers.⁴⁵ This is obviously a significant point of departure between the two

⁴⁴ These may be referred to also as reprise questions, i.e. questions whose purpose is to obtain clarifications about previously introduced information.

⁴⁵ I must, however, admit that, except for the Expect-Q in (95), I cannot see how any of these questions would tolerate an answer that would contradict their existential presupposition.

sets of languages. Yet, I believe that this is not strong enough a difference to ignore the obvious parallelism between these languages' interrogatives. It may be that the two sets of languages only differ in the nature of the presupposition that must be in the common ground. One could hypothesize that in English and BP, the presupposition contains some modal component that would weaken it. The context set would then contain a subset of possible worlds where the presupposition is satisfied and another subset of possible worlds where it is not. Take, for instance, (95), where it is expected of B that he should have made some cookies. This, however, is what is expected under normal conditions, which leads me to posit that the proposition which licenses the Expect-Q is as follows: In light of what usually holds in w , there is at least one world w' in which there is at least one cookie x such that A made x . Even if one should assume that that this proposition has universal modal force, there would still be a set of possible worlds outside the modal base where the proposition would not necessarily hold.⁴⁶ A deeper investigation of these English and BP DWQ-like questions would require that we analyze the specific linguistic means which these languages deploy. For the sake of brevity, I must, however, leave this undertaking for a later time.

In light of the data presented in this section, I draw the conclusion that there are languages beside MC which differentiate between DWQ- and IWQ-like questions; English and BP are apparently among those.⁴⁷ I take this to mean that UG provides the basic blocks

⁴⁶ To be more precise, this set of possible worlds would include worlds where normal conditions do not hold.

⁴⁷ From a typological point of view, it would be very interesting to determine whether there are languages where the (in)definiteness parallelism between nominals and wh-questions is of a more perfect nature. I am unfortunately unable to answer this question at this stage. However, as far as morphological marking is concerned, Wolof presents an interesting case. Torrence (2013) observes that this language distinguishes between two types of wh-questions depending on the morphological realization of a clausal determiner. The latter can take the form of either the indefinite or the definite article. It would therefore make sense to view these two types of questions as IWQs and DWQs, respectively. Examples of these are given in (ia) and (ib), respectively (taken from Torrence 2013:94).

- (i) a. An-a k-an mu a lekk gato b-i?
 Q_{wh}-DET CL-*an* 3SG COP eat cake CL-DEF.PROX
 ‘Who take the cake?’

for the formation of DWQ-like questions. I have argued that the key ingredient in MC is what I have labeled a clause determiner (*la*). This terminological choice is primarily motivated by this marker’s morphophonological resemblance with the definite article. However, it might just as well as have been referred to as a discourse particle. I, therefore, propose that we now take a look at the interaction of discourse particles with wh-questions in German and French.⁴⁸

3.7.2 A brief look at discourse particles in wh-questions

The occurrence of discourse particles in wh-questions is not unique to MC DWQs. Among the languages where this phenomenon is found, I would like to single out German and French. By comparing MC with these languages – and thus establishing both similarities and differences, I wish to put greater emphasis on the idiosyncrasies of MC DWQs. Although an exhaustive comparison of these three languages and their respective particles is beyond the scope of this chapter, I shall nonetheless make mention of the most salient similarities and differences in terms of semantics/pragmatics and syntax.

Before we look at the various relevant discourse particles, let us reflect on discourse particles in general. According to Kratzer (1999, 2004), the crucial function of discourse particles is to establish a relation between an utterance and the context. This may notably involve knowledge shared by the discourse participants, as is the case with the German discourse particle *ja* illustrated in (97), reproduced from Kratzer (2004:127).

b. An-i k-an mu a lekk gato b-i?
 Q_{wh}-DET CL-an 3SG COP eat cake CL-DEF.PROX
 ‘Who (of the people I have in mind/under discussion) ate the take?’

Torrence argues that the difference between these two types of questions has to do with D-linking. Unfortunately, he does not present much evidence as to what kind of context licenses (or bans) one or the other type of wh-questions. It is thus difficult to ascertain whether D-linking alone is relevant. It may turn out that the distinction between IWQs and DWQs may also obtain in Wolof. Further research is clearly needed.

⁴⁸ For reasons of brevity, I limit myself to these two languages.

- (97) Wir verstehen die Bedeutung dieses Satzes, da wir **ja** Deutsch
We understand the meaning of this sentence since we German
Können
know
'We understand the meaning of this sentence, since we know German.'

This sentence is felicitous on the grounds that the speaker can reasonably assume that it is shared knowledge for her and her interlocutors that they all know German. Extralinguistic factors may also license the use of *ja*, as in (98) (reproduced from Kratzer 2004:127).

- (98) Spencer is walking up the stairs in front of Webster.
Webster: Du hast **ja** 'n Loch im Ärmel
you have a hole in the sleeve
'There is a hole in your sleeve.'

In this example, it may very well be that Spencer is not aware that there is a hole in his shirt. However, *ja* is licensed by the fact that the context of utterance readily provides extralinguistic evidence in support of Webster's statement. Examples (97) and (98) highlight the interaction of discourse particles with the context.⁴⁹

Another characteristic of discourse particles is that they tend to modify the speech act. By way of illustration, observe (99), taken from Bayer and Obenauer (2011:454). Here, the particles *nur* and *bloß* contribute the extra proposition that the speaker has already looked elsewhere to no avail.

⁴⁹ Kratzer (2004) refutes the view that this reliance on the input context should be analyzed as a presupposition. In other words, she opposes the view that discourse particles may have an effect on the propositional content of the sentences they appear in. Instead, they contribute an expressive meaning (Potts 2007) which takes the form of a distinct proposition which defines the felicity conditions of the utterance. This obviously goes against my analysis of *la* as a presupposition trigger in MC DWQs. Debating this issue would take me too far afield. I shall instead rather focus on Kratzer's observation that discourse particles establish a link with the input context.

- (99) Wo hast du nur /bloß meine Schlüssel hingelegt?
where have you NUR BLOSS my key put.down
'Where did you put my keys (I have already looked everywhere)?'

It may then said of discourse particles that they are performative in the sense that they perform an additional speech act, or that they, at the very least, modify the speech act (Portner 2009:137). To sum up, the following two properties may then be viewed as hallmarks of speech acts: (i) the peculiar relationship they establish with the context of utterance, and (ii) the contribution of a secondary speech act (or the modification of the main speech act).

Given these two properties, let us now compare French, German and MC discourse particles in *wh*-questions. As regards MC, I believe that this chapter has already established that the abovementioned properties can be attributed to the clausal determiner. First, its felicitous use is clearly tied to the inclusion in the input common ground of an antecedent proposition. Second, there is also a sense that it affects the speech act. Recall that DWQs can always be replaced by IWQs, but that the converse does not hold. In section 3.4.2, I remarked that DWQs are pragmatically marked and that they tend to carry some extra meaning or express some attitude on the part of the speaker. For instance, the speaker may opt for a DWQ to indicate that he will not tolerate a *nothing*-type answer or to point to some salient proposition in the common ground.

As regards German, (99) already established that the language possesses discourse particles which, when added to a *wh*-question, will modify the speech act. Now, take a look at (100) (taken from Bayer and Obenauer 2011:454), where the particle *denn* “establishes a strengthened relation with the linguistic context, strengthened in the sense that it overtly expresses a quasi-anaphoric relation with the actual situation” (Bayer and Obenauer 2011:468-469). Also note that this particle carries the expressive meaning indicated between brackets in the translation.

- (100) Wo hast du denn meine Schlüssel hingelegt?
where haveyou DENN my keys put.down
'Where did you put my keys? (I'm wondering.)'

In light of the above example, it appears that a parallel can be drawn between German and MC insofar as both possess markers that manifest the properties described above as typical of discourse particles, at the very least in terms of semantics and pragmatics.

Let us now consider the case of French. Here, I shall first consider *donc* and *ça* which appear to the right of a wh-phrase, as exemplified in (101), adapted from Smirnova and Abeillé (2021:240).

- (101) a. Qui donc est venu ?
 who DONC is come
 ‘Who actually came ?’
- b. Tu as vu qui ça à Paris ?
 you have seen who ÇA in Paris
 ‘Who have you seen in Paris?’

As regards the pragmatics and semantics of these two particles, Smirnova and Abeillé propose that *ça* “tends to point more to the preceding context [...] while *donc* is more apt to point to the discourse continuation. Indeed, many questions with *donc* are not ignorance questions” (261). Thus, of these two particles, the closest one to the MC clausal determiner is *ça* because of its anaphoric tendencies. It is in fact most commonly used in reprise questions, i.e. clarification questions or Ref-Qs in Pires and Taylor’s (2007) terminology. Thus, (101b) could have been preceded by the following utterance: *J’ai vu des amis à Paris* ‘I saw some friends in Paris’. Similar uses are also possible with the MC clausal determiner. However, it would appear that MC DWQs have a wider range of possible uses (see the discussion in section 3.7.1). It is nonetheless true that MC DWQs and French wh-*ça* questions have in common the property that they cannot be used as ignorance questions. In other words, when the speaker uses either type of question, he knows beforehand that the domain of the wh-phrase is non-empty. Given all these observations, it does appear that the three languages under consideration possess discourse particles whose semantics and pragmatics are somewhat similar.

As regards their syntax, the three languages are rather dissimilar. As far MC is concerned, I refer the reader to section 3.5.2 for a detailed analysis. Recall, nonetheless,

that the main thrust of this analysis is that the MC clausal determiner is e-merged in the left periphery (possibly above ForceP). This stands in contrast with the German particles, which are all e-merged at the edge of *v*P (Bayer and Obenauer 2011; Bayer et al. 2016). This begs the question of how they are able to affect illocutionary force, which, on standard association, I take to be located in ForceP. Adopting the mechanism of feature valuation and feature checking developed in Pesetsky and Torrego (2007), Bayer and Obenauer (2011) propose that an AGREE relation is established between Force and the various functional heads lexicalized by the discourse particles.⁵⁰ Their proposal is encapsulated in (102), their (30).

$$(102) \quad \left[\begin{array}{c} \text{[FinP/ForceP Wh Force}^\circ/\text{Fin}^\circ \text{ } iQ, iQ\text{Force[4]} \text{ } \left[\begin{array}{c} \text{[(TopP) ... [PrtP Prt}^\circ \text{ } uQ\text{Force[4]} \text{ } \left[\begin{array}{c} \text{[(AdvP*)} \\ \text{[VP/vP ...]}] \end{array} \right] \end{array} \right] \end{array} \right] \end{array} \right]$$

The interpretable but unvalued QForce feature of Force is valued through the AGREE relation it enters with the uninterpretable but valued QForce feature associated with Prt, the merge site of the discourse particle. Thus, although there is a clear difference between MC and German in the type of mechanism at play, it is reasonable to assume that the two languages converge in the fact that the discourse particle entertains a relation with Force. This adequately captures the modification of the speech act by the discourse particle.

Before discussing French, I would like to tarry a little more on German particles. Besides occupying a pre-*v*P position, they can also merge with wh-phrases to form a constituent, as shown in (103) (reproduced from Bayer and Obenauer 2001:471).

$$(103) \quad \begin{array}{l} \text{[Wer denn] soll befehlen?}^{51} \\ \text{who DENN should command} \\ \text{'Who is then supposed to command?'} \end{array}$$

According to Bayer and Obenauer (2011), the constituent formed by the wh-phrase and the

⁵⁰ Note that these particles can be stacked and that when they are, they are subject to a rigid ordering.

⁵¹ Originally taken from the following web address:

http://gutenberg.spiegel.de/?id=5&xid=1502&kapitel=23&cHash=0476abe10fampfl22#_gb_found

particle is first-merged in the appropriate position (e.g. a position where it may receive the appropriate theta-role). It then raises to the Spec of the pre-*v*P position usually occupied by the relevant overt particle, then on to its surface position in the left periphery. Note that in this configuration an empty category will head the relevant pre-*v*P projection. The derivation is captured in (104), reproduced from Bayer and Obenauer (2011:477). (Small *PrtP* refers to the constituent formed by the *wh*-phrase and the particle.)

- (104) a. [_{VP/vP} ... [*PrtP/whP*_{*uPrt* []; *uQ* []}] ...]
 ⇒ Merge a silent *Prt*
- b. [*PrtP* *Prt*[°]_{*iPrt* []} [_{VP/vP} ... [*PrtP/whP*_{*uPrt* []; *uQ* []}] ...]]
 ⇒ Move small *PrtP*
- c. [*PrtP* [*PrtP/whP*_{*uPrt*[3]; *uQ* []}] *Prt*[°]_{*iPrt* [3]} [_{VP/vP} ... [~~*PrtP/whP*~~_{*uPrt* [3]; *uQ* []}] ...]]
 ⇒ Merge Force/Fin
- d. [*Force*[°]/*Fin*[°]_{*iQ* []} ... [*PrtP* [*PrtP/whP*_{*uPrt*[3]; *uQ*[]}] *Prt*[°]_{*iPrt*[3]} [_{VP/vP} ... [*PrtP/whP*_{*uPrt*[3]; *uQ* []}] ...]]]
 ⇒ Move *whP*
- e. [[*PrtP/whP*_{*uPrt*[3]; *uQ*[9]}] *Force*[°]/*Fin*[°]_{*iQ*[9]} ... [*PrtP* [~~*PrtP/whP*~~_{*uPrt*[3]; *uQ*[9]}] *Prt*[°]_{*iPrt*[]}] ... [_{VP/vP} ... [*PrtP* [~~*PrtP/whP*~~_{*uPrt*[3]; *uQ*[9]}] ...]]]]

In the end, despite the obvious differences between these configurations, there is commonality in the fact that the particle will enter an AGREE relation with Force, which enables it to affect the speech act.

As for the French particles, they too form a constituent with the *wh*-phrase (Smirnova and Abeillé 2021). It would be somewhat gratuitous, or at least unmotivated, to hypothesize that they too must raise from their first-merge site to some pre-*v*P position. Nevertheless, it is clear that, just as their German counterparts, they will enter an AGREE relation with Force.⁵² The comparison of the three languages reveals significant differences in the syntax of their discourse particles. There is, however, one factor which seems to

⁵² It should be noted that *wh-ça* may remain *in situ*, but this is not obligatory. In fact, one of the main contributions of Smirnova and Abeillé's (2021) corpus study is that it provides data which invalidates the previously held view that *wh-ça* must remain *in situ* (see, e.g., Cheng and Rooryck 2000).

unite them: the relation these particles establish with Force.⁵³

To sum up this section, this brief comparison of the MC clausal determiner qua discourse particle with French and German discourse particles has shown that MC is not alone in possessing markers which relate a wh-question to the input context and which have the ability to encode expressive meaning, i.e. meaning which goes beyond the propositional content of the wh-question. Despite this similarity in semantics/pragmatics, the small sample of languages under study points to the fact that languages vary in the syntax of their respective particles. Nonetheless, it does appear that, cross-linguistically, the syntactic interaction of these particles with Force is of crucial import to grasp their semantic/pragmatic properties.

Section 3.7 has established that MC is not alone among the languages of the world in having wh-questions whose felicity depends on properties of the input common ground.

⁵³ For reasons of space, I have left aside a third French discourse particle – *là*. An extensive comparison of this particle with the MC clausal determiner would deserve a section of its own. It is in fact plausible that the origins of the MC clausal determiner may be traced back to French *là*, all the more so as it is very likely that its deictic counterpart (as in *ce gars-là* ‘this man’) participated in the creation of the MC definite article (Déprez 2007; Zribi-Hertz and Jean-Louis 2014). It should be noted, however, that the distribution of French *là* is not limited to wh-questions (Forget 1989). When it does appear in wh-questions, as in (i), it is clearly reminiscent of the MC clausal determiner insofar as it does seem to anchor the question to the input context. Not to mention the fact that it too does appear to add an expressive meaning to the sentence. As regards (i), that expressive meaning might be that the speaker is surprised by what her interlocutor just told her.

- (i) Qu’est-ce que tu me racontes là?

Despite these similarities, one should note that, from a synchronic standpoint, French *là* cannot be equated with the MC clausal determiner. Consider (ii), a possible translation of (i). What is interesting here is the clausal determiner cooccurs with invariable adverbial *la* ‘there’, which I assume can be traced directly to French *là*. On the assumption that MC invariable *la* can also be analyzed as a discourse particle in MC, this raises interesting questions about the semantic/pragmatic effects of these stacked particles.

- (ii) Ki sa ou ka di mwen la a?

WH it 2SG IMPF say 1SG *la* CD

‘What are you telling me (given your shared knowledge that you told me something)(I can’t believe what you’re telling me)?’

I take this to mean that UG provides the necessary building blocks to distinguish between IWQ- and DWQ-like questions. Among these buildings blocks, we have seen that discourse particles may play an important role.

3.8 Conclusion

This paper took a first look at MC definite wh-questions (DWQs) and their syntactic, semantic and pragmatic properties. As regards their syntax, DWQs are characterized by the presence in sentence-final position of a clausal determiner which is phonologically identical with the definite article. Based on its distribution with respect to adverbials, I argued that the clausal determiner is merged in the left periphery, probably above ForceP.

In terms of semantics, I hold that definiteness, construed in terms of familiarity, plays a crucial role in the interpretation of DWQs and that this property must be traced back to the clausal determiner. I thus proposed that this determiner spells out a [+DEF] feature and is therefore analogous to the definite article. While the definite article is used to refer to an already established entity, the clausal determiner refers to an already established proposition. This proposition, which I have labelled an antecedent proposition, must belong to the common ground prior to the utterance of the DWQ.

This last property has significant consequences on the pragmatics of DWQs. To begin with, they cannot be uttered out of the blue. An additional consequence is that they do not tolerate *nothing*-type answer on the grounds that this would cause the common ground to be inconsistent, which would bring the conversation in a state of crisis. As for the antecedent proposition, I have shown that there are many ways it can be added to the common ground, e.g. as the proffered content of a prior utterance, as an inference from such an utterance, or through some property of the extralinguistic context.

This first look at DWQs is clearly not exhaustive and further investigation is required. One line of research would consist in exploring in greater depths the pragmatic licensing of these constructions. Another line of research would be to investigate whether the clausal determiner is restricted simply to DWQs or whether it can be found in other MC constructions. Yet another line of research would be to probe the crosslinguistic availability of DWQ-like constructions and the forms they take. All this, I must leave for

future work.

Appendix A: MC DWQs in conversation: a closer look at their pragmatics

A crucial property of MC DWQs is that they cannot be uttered out of the blue. A proper account of this construction thus demands that we investigate their properties within the larger context of discourse. In undertaking this task, I will proceed as follows. I will first lay out the theoretical background against which I propose an analysis, drawing insights mainly from Farkas and Bruce (2010). The analysis proper will be developed in the following subsection.

Theoretical assumptions

In section 3.3, I introduced the notions of common ground, context set and context. These notions were mobilized to account for the effect of each utterance. This provided us with a basic account of the pragmatic properties of DWQs. I would now like to go beyond this basic level and explore in greater depths these issues. In order to do so, I will recruit an adequate model of the interaction of discourse and context. There have been various such models (see, a.o., Roberts 1996, 2004; Ginzburg 1996; Farkas and Bruce 2010). Among these, I opt for the one proposed by Farkas and Bruce (2010), a choice motivated by the special attention they give to interrogatives. Note, however, that the analysis I propose in this section can be recast in any of the aforementioned frameworks provided the appropriate amendments are made. Let us now review Farkas and Bruce's proposals.

Besides the assumptions presented in section 3.3, Farkas and Bruce's system proposes some interesting refinements. Thus, for each participant, Farkas and Bruce posit the existence of a module comprised of his/her discourse commitments. These are the propositions for which the discourse participant makes it publicly known that he/she believes in their truth. Crucially, these propositions are not (yet) part of the common ground. In other words, they are held to be true by that participant alone. For each

participant, there is then a set of total discourse commitments which consists of the union of his/her discourse commitments and the common ground. It should also be noted that a participant's discourse commitments are a subset of all his doxastic base (i.e. the set of propositions which that participant believes to be true), as not all his/her beliefs are made public. A participant's discourse commitments are coherent if the propositions they are composed of are logically consistent. Otherwise, a crisis arises in the discourse. The postulate that there is a module made up of a participant's discourse commitments is crucial for the representation, for example, of those situations when two participants agree to disagree. For instance, participant A may have proposition p as part of his discourse commitments, while participant B's discourse commitments will include proposition $\neg p$. Neither proposition can enter the common ground as this would result in the incoherence of one of the participant's total discourse commitments. Discourse commitments, as a module, are also important to reflect the fact that the proposition denoted by an utterance does not enter into the common ground straightaway. It must necessarily start out as one of the participants' discourse commitments.

In addition to the participants' discourse commitments, Farkas & Bruce propose that each context includes another module – the Table. This may be likened to the Questions Under Discussion found in other frameworks (Roberts 1996, 2004; Ginzburg 1996) and is the repository of the issues the discourse participants attempt to solve by means of their exchange. The conversation is thus driven by the conversants' mutual desire to empty the Table, i.e. to solve all the issues it contains. Any time one of these issues is solved, it is removed from the Table and another issue is then pushed to the top of the Table. We may then construe the Table as a stack of issues to be solved, where each issue is represented in the form of an ordered pair consisting of a syntactic object and its denotation. For illustration, when an assertion is made by a discourse participant, it will be moved to the top of the Table, thus becoming the issue to be decided by the participants. Deciding the issue means that either p , the proposition denoted by that utterance, or $\neg p$ will enter the common ground.

Before this can be done, yet another module must be taken into consideration – the Projected Sets. This module consists of future common grounds whose content is determined by the issue that needs to be decided. By way of illustration, let us assume cg

to be the input common ground and p the proposition denoted by the utterance. That proposition constitutes the issue to be solved and is therefore moved to the top of the Table. The Projected Set is then $\{cg \cup \{p\}\}$.⁵⁴ The addition of Projected Sets as a module models the fact that speakers make predictions as to the effects their utterances will have on the common ground.

Bringing all these elements together, we get (105), Farkas and Bruce's (6), a schema of the context K in an exchange between A and B, two discourse participants. DC_X represents the discourse commitments of speaker X. The common ground is represented here as cg . The Table S comprises the issues that are to be decided by A and B. Finally, the projected sets ps represent the set of common grounds which result from the resolution of the issues in the Table.

(105) The basic structure of a context

A	Table	B
DC_A	S	DC_B
Common ground cg		Projected sets ps

As regards presuppositions, they must be checked against the common ground. In other words, a presupposition will be satisfied if and only if it is a proposition already in the input common ground. A presupposition cannot therefore be satisfied if it is simply part of one of the participants' discourse commitments. It must instead be held true by all the conversants. Accommodation, although it will not be discussed here, is perfectly compatible with this model.

In all fairness to Farkas and Bruce, I must admit that what I have described here is a simplification of their model. Finer subtleties have been left out. These include the various operations which affect the Table, as well as the various possible conversational moves (e.g. confirmation, denial, etc.) and their associated effects. I refer the reader to the original paper for a full presentation of these refinements. The elements I have discussed

⁵⁴ This should be viewed as a simplification. A more accurate model, in line with Stalnaker (1978), should reflect the fact that the updated common ground also includes the proposition that the speaker said p . Although non-trivial, this issue shall be left aside in the following discussion.

so far are amply sufficient for the task at hand.

Modelling the properties and constraints of MC DWQs

Farkas and Bruce's (2010) model provides us with the technology to account for the properties and constraints of both DWQs and IWQs, as we can distinguish between these two types of questions on the basis of their interaction with the context. Drawing on specific examples, this section will reveal the inner workings of each type of question.

DWQs, as I have stated throughout this paper, are characterized by the fact that they require an antecedent proposition in the common ground, which can enter the common ground in various ways. The most straightforward case is when the antecedent proposition is a part of the proffered content of a conversant's utterance. This is illustrated in (106), where A's initial utterance provides the antecedent proposition for B's DWQ.

- (106) A: Man té ni tibren lajan, kidonk man achté yann-dé bagay
1SG PST have a.little money so 1SG buy a.few thing
'I had some money, so I bought a few things.'
- B: Ki sa ou achté a?
WH it 2SG buy CD
'What did you buy (given our shared knowledge that you bought something)?'

- (107) $\llbracket p \rrbracket$ = there is a thing x s.t. A bought x

The antecedent proposition, p, is represented in (107) and corresponds to the second half of A's utterance. Given the felicity of the DWQ in (106B), let us see how the antecedent proposition is added to the common ground.

Let us first consider (108) which schematizes K_0 , the context which precedes A's utterance. By assumption, at this stage in the conversation, the Table is empty and so are the discourse commitments of A and B. This is an obvious simplification, as nothing precludes the Table and the sets of discourse commitments from containing some propositions, but these would be largely irrelevant to the present discussion. As for the

common ground, let s_0 be the common ground at K_0 .

(108) Context K_0

A	Table	B
Common ground s_0		Projected sets

The next step in the conversation is the assertion in (106A), which corresponds to K_1 , the context represented in (109). For the sake of exposition, I shall leave out the first half of A's utterance and focus instead on its second half, whose denotation is given in (107). Following the assumptions laid out in Farkas and Bruce (2010), I hold that p is added to A's discourse commitments and that the Table is enriched with the ordered pair made up of (106A)'s syntactic representation⁵⁵ and p . The common ground s_1 is identical with s_0 . As for the projected sets, I assume that ps_1 is the union of s_1 and p . In other words, should (106A) be accepted, the output common ground will be enriched with p .

(109) Context K_1

A	Table	B
p	$\langle(106A), p\rangle$	
Common ground $s_1 = s_0$		Projected sets $ps_1 = \{s_1 \cup \{p\}\}$

Next, B's DWQ results in context K_2 , represented in (111). In compliance with Walker's (1996) Collaborative Principle, (106B) may be viewed as the implicit acceptance of A's prior assertion. Therefore, the common ground s_2 is identical with ps_1 . In other words, p has become part of both A's and B's total discourse commitments. As a result, p must be removed from A's discourse commitments, as it is already in the common ground. Meanwhile, B's question does not affect the content of his discourse commitments, but keep in mind that p is part of his total discourse commitments owing to its inclusion in the common ground. As for the Table, it must undergo two major changes. First, it is cleared

⁵⁵ Assume (106A) to stand for the syntactic representation associated with the corresponding utterance.

of the content in K_1 , as this issue has already been solved. The second change in the Table consists in the addition of the ordered pair consisting of (106B) as a syntactic object and the set of propositions it denotes. The latter is represented in (110), which substantiates a model where only two objects may have been bought by A – an apple and a banana. As for the projected sets, it consists in ps_2 , the set of common grounds which result from the update of the common ground s_2 with the possible answers to (106B).

- (110) a. $\llbracket(106B)\rrbracket = \{u, v, w\}$
 b. $\llbracket u \rrbracket = \text{A bought an apple}$
 c. $\llbracket v \rrbracket = \text{A bought a banana}$
 d. $\llbracket w \rrbracket = \text{A bought an apple and a banana}$

(111) Context K_2

A	Table	B
	$\langle(106B), \{u, v, w\}\rangle$	
Common ground $s_2 = ps_1 = \{s_1 \cup \{p\}\}$	Projected sets $ps_2 = \{s_2 \cup \{u\}, s_2 \cup \{v\}, s_2 \cup \{w\}\}$	

Each member of ps_2 represents the way in which the common ground can be updated by one of A's possible answers. Crucially, *nothing* ($\neg p$) is not an acceptable answer to (106B) owing to the inclusion of p in the common ground. An inconsistent common ground would obtain otherwise, thus plunging the conversation into a crisis. Logical inconsistency is thus at the root of the unacceptability of *nothing*-type answers in reply to DWQs.

But, what if the DWQ in (106B) were replaced by an equivalent IWQ, namely (106B')?

- (106) B': Ki sa ou achte?
 WH it 2SG buy
 'What did you buy?'

After all, we have already remarked that a DWQ can always be replaced by an IWQ.

However, this substitution would have no effect on the input context. Therefore, even with the IWQ in (106B'), *nothing* remains an unacceptable answer, since this would, for reasons exposed above, result in an inconsistent common ground and cause a conversational crisis. The only difference between the DWQ (106B) and the IWQ (106B') thus lies in the fact that only the former makes explicit reference to the antecedent proposition via the clausal determiner.⁵⁶

The dialogue in (106) and the corresponding contexts in (108), (109) and (111) have illustrated some of the most important properties and constraints of MC DWQs. The requirement that a DWQ be licensed by an antecedent proposition was modeled by the presence of the latter in the common ground. In this example, this was achieved by making that proposition a part of the proffered content of A's utterance. In addition, the unacceptability of a *nothing*-type answer to a DWQ has been shown to originate in the fact that it would put the conversation in crisis because of the resulting logical inconsistency. Furthermore, it was shown that any time a DWQ can be replaced with an IWQ, and vice versa, a *nothing*-type answer will always be infelicitous. But this leaves out those contexts where only an IWQ is acceptable.

This is typically the case when a question is uttered out of the blue. In these contexts, as we have seen, only an IWQ is acceptable. Let us therefore consider (112), to get a better sense of how IWQs differ from DWQs.

- (112) Ki sa ou manjé yè oswè?
 WH it 2SG eat yesterday at.night
 'What did you eat last night?'

Prior to the utterance of (112), I assume a context K_0' similar to K_0 , represented in (108). Thus, at this stage in the conversation, the conversants' sets of discourse commitments are empty, and so are the Table and the projected sets. The common ground s_0' associated with K_0' is also similar with s_0 in (108). Crucially, it lacks a legitimate antecedent proposition.

⁵⁶ Of course, given the discussion of discourse particles in section 3.7.2, a more accurate representation should take into account the expressive meaning associated with the clausal determiner. For expository purposes, I shall, however, focus on the propositional content of the relevant utterances.

A DWQ is thus ruled out. The unavailability of an antecedent proposition is in fact the main characteristic of those contexts in which only an IWQ is felicitous. However, I further posit that IWQs also differ from DWQs in way they affect the context.

For the sake of illustration, let us consider K_1' , the context which results from the utterance of (112). Here again, I assume a model where the set of possible objects is limited to two – an apple and a banana. The set of propositions denoted by (112) is thus identical with (110). Uttering (112) will thus result in K_1' , the context represented in (113).

(113) Context K_1'

A	Table	B
(p')	$\langle(112), \{u, v, w\}\rangle$	
Common ground $s_1' = s_0'$		Projected sets $ps_1' = \{s_1' \cup \{u\}, s_1' \cup \{v\}, s_1' \cup \{w\}\}$

Some authors (see, a.o., Katz 1972; Lyons 1977; Gawron 2001; Karttunen 2016) argue that a wh-question triggers an existential presupposition. In the case of (112), that presupposition would be that there is thing x such B ate x . I consider this assumption to be flawed. Following Abusch (2010), I hold that this apparent existential presupposition stems from the fact that a default cognitive mechanism causes speaker to hold that the disjunction denoted by the wh-question is true. Let us call this disjunction p' . Crucially, if we assume that p' is not a presupposition, it follows that it should not be part of the common ground. If it was, a *nothing*-type answer from B would produce a conversational crisis, as the resulting projects sets would all be inconsistent. Therefore, I propose that this disjunction is instead part of the question-asker's set of discourse commitments. Critically, it is not part of the answerer's discourse commitments. The latter is thus free to offer *nothing* as an answer to (106B'), as this will not result in an inconsistent common ground. In fact, a *nothing*-type answer from his interlocutor may cause the question-asker to remove that inference from his commitments. Placing the apparent existential presupposition in the question-asker's set of discourse commitments is therefore a solution which would prevent the overgeneration of inconsistent sets and conversational crises. But there are additional advantages to this proposal.

Intuitively, it seems to be reasonable to think that when a speaker utters a wh-question, he assumes that there is an answer to his question. This would presumably be the produce of Abusch's (2010:67) posited default interpretive mechanism. It is crucial to note that Abusch views this as both "a linguistic and cognitive phenomenon." Positing that this inference has cognitive roots is consistent with the fact that the default interpretive mechanism of which it is the product can be overridden. In other words, when uttering a regular question or an IWQ, a speaker is not committed to the existential inference. He may be willing to accept a *nothing*-type answer to his question. The existential inference would then be optional as a member of the question-asker's discourse commitments. Hence its representation between round brackets in (113).

Given the similarities between IWQs and DWQs, a reasonable assumption is that the latter too should generate an existential inference in the question-asker's discourse commitments. However, representing this inference would be vacuous, due to the presence of the antecedent proposition in the common ground. After all, by virtue of being in the common ground, the antecedent proposition is necessarily a member of the speaker's set of total discourse commitments. For reasons of economy, I will therefore maintain that the context associated with a DWQ conforms with the prototype schematized in (111).

More needs to be said about DWQs. The conversation in (106) illustrated the case of an antecedent proposition being introduced into the common ground as part of the proffered content of an utterance. However, antecedent propositions may also enter the common ground, either as an entailment or an implicature of a prior utterance. As to the former alternative, I assume that entailments are introduced into the Table at the same time as the utterances they are associated with. Formally, I propose, then, that the ordered pairs in the Table should be replaced with n-tuples consisting minimally of the utterance as a syntactic object, its denotation and its n-2 entailments. As a consequence, all future common grounds in the projected sets would contain the entailments of the corresponding utterance.

As to implicatures, it would be erroneous to include them into the Table, or at least not as part of these n-tuples I have hypothesized. I believe that, on a par with the existential inference associated with an IWQ, implicatures belong among the discourse commitments. Specifically, I assume that an implicature starts out as a discourse commitment of the

speaker, thus reflecting the postulate that conversational implicatures⁵⁷ are the products of cognitive processes, rather than purely linguistic ones. I then conjecture that the same cognitive processes will operate in the hearer's interpretation of the utterance. Accordingly, provided the utterance is accepted by the hearer, the implicature it is associated with will enter his set of discourse commitments. We may postulate a simple operation which moves jointly held discourse commitments to the common ground. This would then allow antecedent propositions to start their lives as implicatures.

Conclusion

In summary, I have applied the technology elaborated in Farkas and Bruce (2010) to model the properties and constraints of MC DWQs and IWQs. As regards DWQs, their dependence on an antecedent proposition was formalized by representing the latter as a member of the input common ground. This proposal attributes the impossibility of *nothing* as an answer to a DWQ to logical inconsistency. Whenever both a DWQ and an IWQ are possible, a *nothing*-type answer will always be infelicitous. Whenever only an IWQ is possible, the question-answerer's set of discourse commitments may include the apparent existential inference commonly associated with a wh-question. This allows for a *nothing*-type answer without the conversation entering a crisis. This model also reflects the fact that this inference finds its origin in cognitive, rather than purely linguistic, processes. It is also compatible with the optionality of this inference, as those cognitive processes can be overridden. Finally, I considered three of the ways in which an antecedent proposition can enter the common ground – (i) as part of the proffered content of the prior utterance, (ii) as the entailment of such an utterance, or (iii) as an implicature associated with a previous utterance. To account for the first two alternatives, I have suggested that they are introduced into the Table jointly with the proffered content of the associated utterance. This reflects their necessary presence in output common grounds. The third alternative differs, insofar as I posit that implicatures start out as discourse commitments of the speaker in virtue of cognitive processes. That the hearer may come to hold the implicature as true would then be the effect of similar cognitive processes obtaining on the hearer's side. By assumption,

⁵⁷ More needs to be said about conventional implicatures, but this must be left for further research.

there must be an operation which moves shared discourse commitments to the common ground, thus making implicatures available as antecedent propositions to DWQs. This completes our survey of the properties of MC DWQs.

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Chapitre 4. The role of sentience in the temporal interpretation of MC modals

4.1 Introduction

A recurring topic in the study of modal verbs concerns their relation with tense and how it is affected by the distinction between epistemic and root modality (see Fălăuș and Laca 2020 for an overview). The debate centers around the claim that tense has wide scope with respect to root modals and narrow scope with respect to epistemic modals. For those scholars who adhere to this view, in a matrix clause, an epistemic modal will be evaluated with respect to the speaker's set of beliefs at utterance time (UT), while the time of evaluation of a root modal will be determined by the temporal specifications of the sentence. Although this claim appears to be supported by cross-linguistic observations (Bybee et al. 1994), it has been contested by other scholars who argue that both epistemic and root modals scope under tense (see, e.g., Rullmann and Matthewson 2018). At any rate, there does seem to be, at the very least, a cross-linguistic tendency for epistemic modals to scope over tense. One of the aims of the present study is therefore to take a closer look at the status of the correlation between modal flavor and scope relations with tense.

This question is all the more important as there is a wide range of variation in the syntax of modal verbs across the languages of the world. In some languages, e.g. French (Authier and Reed 2009), regardless of their flavor, all modals are lexical verbs and share a unique first-merge site in the *v*P. In other languages, e.g. English (Roberts 1993, 1985; Zagana 2008), epistemic and root modals are functional verbs base-generated in the same position in the sentential middle field. Finally, there are languages, (see Cinque 1999 for cross-linguistic data), where it can be argued that epistemic modals are merged above TP and root modals below it. Despite this wide array of syntactic variation, the correlation between a modal's flavor and its scope relation with tense does seem to hold across all the languages of the world. This begs the question of whether there can be a unified account that transcends the apparent variety in syntactic configurations.

The objective of the present chapter is twofold. First, from a theoretical standpoint, it aims at providing a unified account of the relation between modal flavor and tense. Second, from an empirical standpoint, it is a contribution to the study of Martinican Creole (MC) modal verbs. Thus, I provide confirmation of Bernabé's (1983) conclusion that MC modals cannot be treated as functional verbs. Indeed, regardless of their flavor, they are base-generated inside the vP . However, despite the fact that they share a common first-merge site, they do validate the claim that the flavor of a modal affects its relation with tense. Since a strictly positional account à la Cinque (1999) is untenable for the language, I am led to propose instead that there is a link between the orientation of a modal and its relation with tense.

Indeed, the fact that epistemic modals are speaker-oriented suggests that their interpretation is necessarily relativized to a sentient mind, as pointed out by Speas and Tenny (2003). The abstract Sentience Domain, which they posit occupies the higher portion of the left periphery, thus plays a critical role in the interpretation of epistemic modals. I argue, therefore, that what differentiates epistemic modals from their root counterparts is a [sen(tience)] tense feature which entails that their temporal construal depends on the temporal specifications of the abstract Sen(tience) P(hrase) which is at the core of the so-called Sentience Domain. This rightly predicts that the grammaticality of an epistemic modal depends on the presence of SenP in their extended projection. Another correct prediction is that the temporal construal of an epistemic modal depends on whether it is merged in a matrix or an embedded clause. In the first case, it must be interpreted at UT. In the second case, it will be interpreted at the running time of the embedding verb. All counterexamples are shown to involve some form of covert embedding, either indirect free discourse, or an elided *because*-clause. Thus, I am led to support the view that the flavor of a modal will affect its relation with tense and that this is not just a tendency, but a universal. However, departing from previous proposals, I attribute this difference, not to scope, but to the feature makeup of the modals, viz. the fact that they do or do not bear a [sen] feature.

The chapter is organized as follows. Section 4.2 provides some background on the theoretical debate at issue. Sections 4.3 offers an overview of MC modals, while section 4.4 gives some insight into the expression of tense in the language. Section 4.5 then

describes the interaction of MC modals with tense markers and reaches the conclusion that they are lexical verbs and that a strictly positional analysis cannot describe the interpretational data. Thus, section 4.6 reconsiders the issue and suggests that there is a correlation between the orientation of a modal and its relation with tense. A technical implementation of this idea is offered in section 4.7, where it is suggested that a [sen] feature is what distinguishes epistemic from root modals. The cross-linguistic implications of this proposal are considered in section 4.8. Finally, section 4.9 concludes the paper.

4.2 Theoretical perspectives on Tense-Modality interactions

This section offers a succinct review of the literature on the interaction of modals with tense, with a focus on two main issues. The first issue concerns whether the epistemic/root distinction affects the scope relation of a modal with tense. The second issue, which follows from the first one, centers around the syntactic encoding of these scope relations. These issues, which are presented sequentially, will set the background for the analysis of MC modals in the following sections.

4.2.1 Modal flavor and scope relations with tense

As regards the issue of whether the epistemic/root distinction has an impact on the scope relation between modals and tense, we can distinguish between two opposite views. On the first view, epistemic modals are claimed to have obligatory wide scope with respect to tense, while root modals have obligatory narrow scope (Palmer 1986:87; 2001; Marrano 1998; Cinque 1999; Stowell 2004; Hacquard 2006; Borgonovo and Cummins 2007). In other words, it is assumed that, when found in main clauses, epistemic modals are necessarily interpreted at UT, while root modals are free from such a constraint. This generalization is captured in (1), where wide scope is indicated by the sign “>”.

$$(1) \quad \text{Mod}_{\text{epistemic}} > \text{Tense} > \text{Mod}_{\text{root}}$$

This proposal is supported by the data in (2). Thus, in (2a), although the epistemic modal bears past morphology, it is interpreted on the basis of the speaker’s set of beliefs at UT.

The prejacent¹ state, on the other hand, is construed as holding over some time span *t* prior to UT. To be more explicit, let us assume that John failed to come to the party I organized last night. Suppose furthermore that I know that John loves partying so much that he would never miss a party unless he was sick. On the basis of these two facts which are part of my epistemic base as I utter (2a), I come to the conclusion that it is very likely that John was sick. However, suppose now that this morning, long after the party was over, I come to learn that he was in fact absent because he had to work late. It would then be infelicitous for me to utter (2b) because this statement would be inconsistent with my epistemic base at UT. However, at the time of the party, I was not yet aware of the actual reasons of John’s absence. Thus, in light of what I knew at the time of the party, I could have reasonably assumed that he was sick. Yet, it would be impossible for me to utter (2b) because the modal is evaluated on the basis of my epistemic base at UT, rather than what I knew at any other time. This is schematized in (2b), where the epistemic modal scopes over past tense and the prejacent under it.

- (2) a. Jean devait être malade
 John must.PST.IMPF be sick
 ‘John had to be sick.’
- b. [must [PAST [be-sick(j)]]]

On the other hand, when root modals bear past morphology, they are evaluated with respect to some time *t* prior to UT. This is illustrated in (3a), where the deontic modal is evaluated with respect to the rules which held at some past time. The prejacent, for its part, is read as holding at some time *t*’ subsequent to the evaluation time *t* of the root modal. Hence the schema in (3b).

¹ I take the prejacent to be “the sister of the intensional operator” (Von Stechow 2003:5). In the case of modal sentences, it can therefore be construed as the proposition asserted by the sentence stripped of its modal content. By way of illustration, the modal sentence *John must be sick* would have as its prejacent the proposition *John is sick*.

- (3) a. Jean devait faire ses devoirs
John must.PST.IMPF do his homework
'John had to do his homework.'

b. [PAST [must [do-his_j-homework (j)]]]

The data in (2) and (3) thus lend support to the hierarchy in (1). It would appear therefore that epistemic modals are obligatorily evaluated at UT.

This, however, is incorrect. When an epistemic modal is embedded under an attitude, it is in fact evaluated at the time of that attitude.² Significantly, it cannot be interpreted at any other time. Accordingly, the embedded epistemic modal in (4) is evaluated with respect to the speaker's set of beliefs on the previous day at four o'clock, and not any other time.

- (4) Yesterday, when I woke up at four o'clock, I thought that it had to be five o'clock.

This should not be viewed as a counterexample to (1). What (4) shows is that the evaluation time of an embedded epistemic modal must be simultaneous with the running time of the embedding attitude, much as a matrix epistemic modal is interpreted with respect to the speech event (Hacquard 2006). What is crucial here is that the epistemic modal does not have a tense specification of its own.³ To put it differently, it scopes over the embedded tense, meaning that (1) can be preserved, at least in the eyes of those who hold the view that the flavor of a modal has an influence on its scope relation with tense.

There is, on the other hand, a second school of thought which rejects (1) and claims

² I will limit the discussion here to those attitudes which Anand and Hacquard (2009) refer to as doxastic attitudes. These include verbs such as *believe*, *think*, and *know*. These attitudes are characterized by two properties: (i) they necessitate a sentient attitude holder, and (ii) they are used to report beliefs. I refer the reader to Anand and Hacquard's paper for a more complete taxonomy of attitudes.

³ Instead, as shall be discussed below, it inherits the tense specifications of an embedding event, possibly the speech event.

instead that modals, both epistemic and root, have narrow scope with respect to tense (Eide 2003, 2005; von Stechow and Gillies 2008; Martin 2011; Rullmann and Matthewson 2018). We shall review two arguments in favor of this position, starting with the weaker of the two.

Eide (2003, 2005) remarks that Norwegian modals can bear past morphology when they appear in Sequence-of-Tense (SoT) contexts. This is illustrated in (5), her (12a).

- (5) Marit påstod at Jon måtte være morderen
Marit claimed that Jon must.PST be killer-DEF
'Marit claimed that Jon had to be the killer.'

The reader, of course, will have noticed the resemblance between (4) and (5). In both examples, the modal bears past tense morphology. What differentiates the two schools of thought is how they analyze this type of data. This difference is exemplified in Eide's account of (5). Starting out with the observation that the modal is evaluated at some *t* prior to UT, she argues that the embedded past tense is indexical. In other words, because it bears past morphology, it has to be interpreted as holding at some *t* before UT. Its temporal interpretation would therefore be on a par with that of the embedding attitude, which also bears past morphology. On this view, the fact that the evaluation time of the modal coincides with the running time of the attitude is almost accidental. Some additional mechanism is thus required to account for the observed coincidence. At any rate, (5) clearly relates to the controversial issue of SoT, as it instantiates the so-called past-under-past configuration. On the one hand, some scholars have argued that in some languages embedded tenses are semantically vacuous (Abusch 1988, 1997; Ogihara 1995). Accordingly, in a sentence such as *John said that he was tired*, John's being tired can be construed simultaneous with his saying so.⁴ On this view, embedded tenses are not necessarily indexical. There is, on the other hand, another set of scholars who argue that embedded tenses, on a par with matrix tenses, are indexical (Enç 1987; Eide 2003, 2005). Settling this debate is beyond the scope of this paper. What is clear, however, is that one's

⁴ A shifted reading is also available. On this reading, this sentence would mean that John's fatigue held at some time *t* prior to this claim.

interpretation of (5) depends largely on one's view of the SoT debate. Thus, the mere fact that an embedded epistemic can be evaluated before UT is not the strongest argument for the view that tense scopes over both epistemic and root modals.⁵ A stronger argument is therefore needed.

Given the limitations associated with embedded contexts, the best evidence for the view that epistemics can scope under tense should come from unembedded epistemic modals which can be shown to be evaluated at some time *t* distinct from UT. This is exactly the type of facts found in von Stechow and Gillies (2008:87). Take, for instance, (6). The context here is that Sophie opens the freezer in search of ice cream. Upon realizing that there is none, she utters (6).

(6) There might have been ice cream in the freezer.

Von Stechow and Gillies argue that the epistemic modal in (6) falls in the scope of the past tense. It is interpreted with respect to Sophie's set of beliefs prior to her opening the freezer. Its interpretation cannot be relative to her set of beliefs at UT, since at this time she knows that there is no ice cream in the freezer. This constitutes stronger evidence for the claim that epistemic modals can be interpreted in the scope of tense.

However, Boogaart (2007) argues that, in fact, (6) and similar cases also pertain to SoT. Such sentences, he claims, feature an epistemic modal embedded under an implicit past clause.⁶ That is, (6) would be equivalent to something akin to *(I thought that) there might have been ice cream in the freezer*. This would in fact be a case of free indirect discourse, and one could therefore argue that the modal is construed with respect to the set of beliefs held by the speaker at the time *t* set by the abstract clause. This would put (6) on a par with (4) and (5), which would considerably weaken the view that epistemic modals can freely scope under tense. This analysis is, however, disputed by Rullmann and Matthewson (2018), who reject the view that sentences like (6) necessarily involve free

⁵ Note, furthermore, that, as shown in (2a), French epistemic modals can bear past morphology in root clauses although they are evaluated at UT. Past morphology cannot of itself account for the temporal interpretation of a modal.

⁶ See also Hacquard (2006) and Anand and Hacquard (2009) for similar accounts.

indirect discourse. Observe (7), which combines their (140) and (141).

- (7) a. Betty woke up feeling nervous. Today was going to be awful.
b. A (talking about what B did yesterday): Why did you look in the freezer?
B: The ice cream might have been/had to be in there (#today).

In (7a), we have a clear case of free indirect speech, which we can diagnose through the interpretation of the indexical adverb *today*. Because the second sentence in (7a) involves free indirect discourse, *today* is interpreted with respect to Betty's frame of mind on some day prior to UT; thus, *today* refers to that particular day when Betty woke up feeling nervous. We may therefore posit the presence of an abstract embedding attitude; (7a) would then be equivalent to *(Betty thought that) today was going to be awful*. In (7b), on the other hand, the use of *today* is infelicitous. This is an unexpected result if one assumes, following Boogaart (2007), the presence of a covert attitude verb. This leads us to posit that even when free indirect discourse does not obtain, a modal can be interpreted with respect to a past set of beliefs. This, Rullmann and Matthewson (2018), take as evidence that epistemic modals may scope under tense.

This conclusion, however, has not gone unchallenged. For instance, van Dooren (2020), drawing on experimental data, maintains that epistemic modals cannot scope under tense. In her view, the facts presented by Rullmann and Matthewson (2018) are somewhat dubious. We are thus faced with issues of empirical reliability. Let us, nonetheless, assume that there is some credit to Rullmann and Matthewson's claims, although the data would be marginal. We would then have to reject the strong claim that epistemic modals necessarily scope over tense and substitute it with the weaker claim that epistemic modals generally scope over tense. What is at stake therefore is the status of (1), as we would be led to replace a generalization with a tendency. Why there should be such a tendency is, nonetheless, an interesting puzzle.

To sum up, we have seen that there is no consensus as to whether the distinction between epistemic and root modality affects the scope relation of a modal with respect to tense. One of the aims of the present study of MC modals is to offer data to help us

adjudicate between these views, as well as provide some account of why one view should prevail over the other. In other words, by looking at MC data, I shall attempt to establish whether (1) should be viewed as a robust generalization or just a tendency.

4.2.2 The syntax of tense-modality scope relations

The second issue this paper addresses is the syntactic relation between modals and tense. This is unsurprisingly correlated with one's apprehension of the interaction between the flavor of a modal and its scope relation with tense.

If one assumes that epistemic modals have wide scope with respect to tense and root modals narrow scope, then one might be tempted to adopt Cinque's (1999) universal hierarchy of the sentential middle field. Within this functional sequence, epistemic modals are held to occupy a position above the TP node, and root modals a position below. These relations are captured in (8), where all relevant modal and tense projections are typeset in bold.

- (8) [*frankly* Mood_{speech act} [*fortunately* Mood_{evaluative} [*allegedly* Mood_{evidential}
 [*probably* **Mod**_{epistemic} [*once* **T(Past)** [*then* **T(Future)** [*perhaps* Mood_{irrealis}
 [*necessarily* **Mod**_{necessity} [*possibly* **Mod**_{possibility} [*usually* Asp_{habitual} [*again*
 Asp_{repetitive(I)} [*often* Asp_{frequentative(I)} [*intentionally* Mood_{volitional} [*quickly*
 Asp_{celerative(I)} [*already* **T(Anterior)** [*no longer* Asp_{terminative} [*still* Asp_{continuative}
 [*always* Asp_{perfect(?)} [*just* Asp_{retrospective} [*soon* Asp_{proximative} [*briefly* Asp_{durative}
 [*characteristically(?)* Asp_{generic/progressive} [*almost* Asp_{prospective} [*completely*
 Asp_{completive(I)} [*tutto* Asp_{PICompletive} [*well* Voice [*fast/early* Asp_{celerative(II)} [*often*
 Asp_{frequentative(II)} [*completely* Asp_{Completive(II)}

As to the origin of this hierarchy, it is presumably provided by UG, a hypothesis which finds support in the fact that (1) seemingly holds across a wide variety of languages (Palmer 1986, 2001; Bybee et al. 1994).

There are, however, at least two ways to interpret Cinque's (1999) hierarchy. First, if construed literally, it would imply that modals are functional verbs first-merged in the relevant functional heads. This view is notably espoused by Hacquard (2006), who claims

that French epistemic and root modals are merged in the prescribed positions above and below TP, respectively.⁷ This postulate would provide a neat explanation for (1), but it relies on the flawed assumption that, cross-linguistically, modals are functional verbs. In fact, there are many languages, including French,⁸ where it would seem more reasonable to analyze modals as main verbs. The problem is even more general and is encountered whenever it can be demonstrated that in a given language modals, regardless of their flavor, share a common merge site. This is notably the case of English modals, which are traditionally assumed to be merged in T (Chomsky 1965; Roberts 1985, 1993; Zagana 2008). A literal approach to Cinque's (1999) hierarchy is therefore untenable.

There is in fact a second, more liberal, approach to Cinque's hierarchy according to which modals are not necessarily first-merged in the relevant projections, but must be interpreted there. This could then be achieved either through base-generation or through movement, overt or covert (Stowell 2004). This would offer a convenient way to account for those languages where modals are main verbs. This is, nonetheless, a significant departure from Cinque's initial treatment of modals as functional verbs participating in underlyingly monoclausal structures. Furthermore, an adequate account based on these premises would need to provide some motivation for the posited movements. Not to mention the necessity of accounting for the well-known, and robust, generalization that root modals cannot take wide scope with respect to epistemic modals (see Axel-tober and

⁷ On this view, one may ask why, for instance, French epistemic and root modals do not show any difference in their Tense-Aspect-Mood (TAM) morphology. A possible answer would be that the TAM affixes raise to $Mod_{epistemic}$, while Mod_{root} raises to the TAM heads (Stowell 2004).

⁸ The view that French modals are functional verbs, which is also espoused by Rowlett (2007), is rather dubious, as it wrongly predicts that French modals appear in monoclausal structures. See Authier and Reed (2009), who point to the lack of transparency effects. Therefore, pace Hacquard (2006) and Rowlett (2007), I hold that French modals are lexical verbs merged in the VP.

In contrast, based on restructuring data (e.g. clitic climbing, auxiliary choice) found in Italian modal sentences (Rizzi 1982), it is reasonable to treat Italian modals as functional verbs whose first-merge site is located in the sentential middle field (Cinque 1999, 2004). Note, however, that because restructuring is optional, Cardinaletti and Shlonsky (2004) argue that Italian modals are categorially ambiguous. They are either functional verbs e-merged in the sentential middle field or lexical verbs e-merged in the vP .

Gergel 2016 and references therein).⁹ In any case, whether one takes a strict or liberal approach to Cinque's (1999) hierarchy, the latter is subject to the usual criticisms levelled at the cartographic approach: why should such a hierarchy hold at all in the first place?¹⁰

Zagona (2007) represents an attempt to circumvent this issue by positing that the difference between root and epistemic modals lies in their feature set. She proposes that root modals differ from epistemics in the fact that they are associated with a [person] feature. They are therefore adjoined to vP. In this position, their [person] feature is valued by the subject in Spec,vP. Their subsequent movement to T allows them to check the uninterpretable person feature borne by the latter node. Epistemic modals, on the other hand, lack such a feature, and must therefore enter the derivation at a later stage. To be more specific, they must be merged above TP. Zagona argues that merging an epistemic modal below TP would result in leaving the person feature on T unchecked, on the grounds that the modal being the closest verb in the c-command domain of T would lack the appropriate feature. These difficulties can be obviated by merging the epistemic above TP. T would then check its person feature on the subject DP. If one assumes furthermore that the latter becomes inactive once it has checked the person feature on T, it follows that the epistemic modal cannot be associated with a person feature. Otherwise, the inaccessibility of the subject DP would leave the person feature of the modal unchecked and the derivation would fail to converge. At the root of this proposal is the key assumption that epistemic modals differ from root ones in the fact that their interpretation has to do with the

⁹ Consider the following facts for illustration. Of the two modals stacked in (i), only the first may receive an epistemic reading. In that case, the second modal receives a root interpretation. In other words, the speaker considers it possible that Max will be obligated to leave earlier. In contrast, it is impossible to assign a root reading to the first modal and an epistemic reading to the second one. That is, (i) cannot be interpreted as meaning that the permission is given to Max that it is possibly the case that he will leave earlier.

- (i) Max pourrait devoir partir plus tôt
Max could must leave more early
- a. 'It is possibly the case that Max will have to leave earlier.' (epistemic > root)
b. #'It is possible for Max that it is necessarily the case that he must leave earlier.' (root > epistemic)

¹⁰ See Larson (2021) for an attempt to answer this question.

illocutionary force of the utterance. After all, the use of an epistemic modal is meant to qualify the speaker's assertion. On the standard view that illocutionary force (e.g. assertion) is syntactically related to features/heads of the C-system (Rizzi 1997, 2001), we should expect epistemic modals to entertain a peculiar relation with the said C-system. As a matter of fact, Zagana (2007) takes this idea one step further by proposing that the C-system also encodes the center of deixis, which includes the speaker and the time of utterance. Given the relation between epistemic modals and the C-system, we can account for the fact that their interpretation is relative to the speaker's epistemic base at UT. It is therefore the entire speech event which is relevant to the construal of an epistemic modal (see Hacquard 2006 for a somewhat similar proposal). This analysis further makes the adequate prediction that an epistemic modal will be embedded if and only if the embedding C-system is endowed with a [center of deixis] feature. Unfortunately, this approach is not easily generalized to languages where modals are merged in the same position and/or participate in biclausal structures.

Zagana (2008) acknowledges this issue and proposes an analysis which is meant to deal with languages where modals share the same first-merge site, regardless of their flavor. This is notably the case of English, where, as stated earlier, it is assumed that modals are merged in T. There must be some other way, therefore, to distinguish epistemic from root modals. Zagana proposes that the flavor of a modal is correlated with the features it is merged with. Thus, epistemic modals, she assumes, merge with an uninterpretable tense feature, while root ones are associated with an interpretable tense feature. This means that root modals are evaluated at a time which satisfies the presuppositions of their associated interpretable tense feature. They are furthermore able to value the uninterpretable tense feature of *v*. The temporal interpretation of the prejacent is therefore relative to the interpretable tense feature borne by the root modal. As for epistemic modals, the fact that they merge with an uninterpretable tense feature is consequential. Because *v* cannot value the tense of the epistemic modal, only C can. If we assume, as in Zagana (2007), that C can merge with a [center of deixis] feature, it follows that the epistemic modal must be interpreted relatively to the speech event. To put it differently, it is evaluated with respect to the speaker's epistemic base at UT. This also means that the uninterpretable tense feature of *v* is valued by C through the proxy of the intervening T node which hosts the modal.

This in turn entails that the temporal interpretation of the prejacent is relative to UT.¹¹ Zagona further argues that the difference in the feature set of epistemic and root modals affects the type of predication they encode. A root modal, because it bears an interpretable tense feature, enters a predication relation with the subject following the latter's movement to Spec,TP. This would account for the subject orientation of root modals. As for epistemic modals, the fact that they bear an uninterpretable tense feature will prevent a predication relation with the subject of the prejacent. Instead, owing to the fact that it enters a probe-goal relation with the *v*P, the epistemic modal is predicated of the event denoted by the latter. We could relate this to the fact that epistemic modals are meant to qualify the likelihood of the prejacent event. Zagona's analysis is originally meant to account for a language (English) where both root and epistemic modals are functional verbs merged in T. There is no reason, however, why this approach could not be extended to languages in which modals are main, rather than functional, verbs, as the crucial difference between a root and an epistemic modal would reduce to the presence/absence of an interpretable tense feature on T. At any rate, despite their obvious differences, Zagona (2007) and Zagona (2008) exemplify analyses where the contrast between epistemic and root modals is assumed to derive from a divergence in their feature sets, rather than just their position. Both studies further converge in the importance granted to the C-system in the interpretation of epistemic modals.

Thus far, we have established that the hierarchy in (1) – repeated below for the reader's convenience – can be transposed in the syntax in various ways.

(1) Mod_{epistemic} > Tense > Mod_{root}

Let us not forget, however, that not all scholars recognize the validity of (1). According to these scholars who do not, root and epistemic modals are both interpreted in the scope of

¹¹ Crucially, this does not mean that the prejacent should be construed as simultaneous with UT. As a matter of fact, Zagona's (2008) analysis obfuscates the fact that aspectual heads are to be found between TP and *v*P. On the assumption that viewpoint aspect denotes temporal relations (Klein 1994; Stowell 2007; Demirdache and Uribe-Etxebarria 2007), the potential presence of aspectual heads between TP and *v*P entails that the prejacent is interpreted in relation to the speech time, but not necessarily simultaneous with the latter.

tense. Structurally, this postulate may take the form of (9), adapted from Rullmann and Matthewson (2018), where it is posited that modals are merged below tense and above two aspectual projections. The first of these is Asp_{Ord} , which encodes an ordering relation between the event time of the prejacent and the time set by the tense specifications of the T node. The second aspectual projection, Asp_{IncP} , marks an inclusion relation between these two time spans.

$$(9) \quad [_{TP} T [_{ModP} Mod [_{Asp_{Ord}P} Asp_{Ord} [_{Asp_{Inc}P} Asp_{Inc} [_{vP} v \dots]]]]]]$$

The structure in (9) is obviously monoclausal, which makes it compatible only with these languages where modals are functional verbs. It can, nonetheless, be applied with some modifications to languages where modals are lexical verbs. We would then end up with a biclausal structure in the vein of (10), where modals are merged in the matrix vP , while the prejacent is a clausal complement XP of undetermined size and category.

$$(10) \quad [_{TP} T [_{Asp_{Ord}P} Asp_{Ord} [_{Asp_{Inc}P} Asp_{Inc} [_{vP} v \dots Mod [_{XP} \dots [_{AspP} Asp [_{vP} \dots]]]]]]]]$$

In both (9) and (10), T would be unaffected by the flavor of the modal. Within Zagana's (2007, 2008) framework, this would mean that it bears an interpretable tense feature, which would then value the tense feature of the matrix v node. Accordingly, the modal would be interpreted on the basis of the specifications of the temporal and aspectual heads in its extended projection. It is important to note that this type of structure does not grant any particular significance to the speaker-orientation of epistemic modals, at least not when it comes to the specifications of T. While, strictly speaking, there is no reason why (9) and (10) should be incompatible with the postulate that a peculiar relation holds between the C-system and an epistemic modal, such a relation would have no effect on the feature specifications of T. At any rate, this type of structure is meant to account for examples such as (6) where an epistemic modal is interpreted on the basis of the speaker's epistemic base at some time other than UT. Note that this proposal does not provide a reason why (1), even if it is no more than a tendency, seems to hold across the languages of the world. It also does not say much about fact that in a sequence of modals, only the first one may

receive an epistemic reading (see fn. 9).

In summary, we have reviewed various approaches to the structural encoding of the correlation between modal flavor and modality-tense scope relations. For those linguists who hold that epistemic modals scope over tense and root ones under it, we have seen that a variety of alternatives are available. The null theory is encapsulated by Cinque's (1999) hierarchy, where, depending on their flavor, modals are assumed to occupy distinct positions with respect to tense. This can be interpreted in various ways. On the stricter reading, this hierarchy would imply that modals are base-generated in the relevant positions. A looser reading would instead assume that modals must simply be interpreted in these positions, which may be achieved through overt or covert movement (Stowell 2004). Adopting the latter reading does not of itself provide an explanatory account of this hierarchy. Zagana (2007) and Zagana (2008) constitute attempts to meet this standard, as they attribute the wide scope of epistemic modals vis-à-vis tense to their peculiar relation with the C-system, as the locus of a [center of deixis] feature, and the repercussions this has on uninterpretability of the tense features borne by T. This stands in contradistinction with the view that the epistemic-root distinction has no effect on the scope relations of modals and tense. The latter view implies that, no matter the flavor of the associated modal, T is always merged with interpretable tense features. The present exploration of MC modals and their interaction with tense should therefore assess whether any of these accounts provides for an adequate description of the data.

4.2.3 Summary

In this section, I have identified the two central issues which constitute the thrust of the present study of MC modals. The first issue concerns whether there is a correlation between the flavor of a modal and its scope relations with tense, the crux of the matter being really whether epistemic modals (tend to) scope over tense. The second issue centers around the syntax of modals and how it is affected by modal flavor.

4.3 MC modals: an overview

The present section is meant to provide the reader with a general overview of MC's four

modal verbs: *dwet*, *pé*, *sa* and *pou*.¹² These differ in their degree of specialization. While

¹² This presentation does not exhaust the expression of modality in MC. A notable omission is *fok* (and its allomorph *fò*), which encodes deontic necessity and appears to occupy a position outside the IP, as reflected by the fact that it precedes all IP-internal material, including the subject and the VP. This is illustrated in (i).

- (i) Fok ou kouté sé gran-moun lan
 must 2SG listen PL adult DEF
 ‘You must listen to the adults.’

The above example would seem to suggest that *fok* occupies a position in the C-system. However, it is not quite so clear that it is not a verb. Consider the two examples (ii), which both express a past necessity. In both examples, an occurrence of the past marker appears in the preadjacent. However, there is a major difference between these two examples in terms of morphology. In (iia), we find the form *fok*, while in (iib) features *falé*, which I take to be an inflected form of *fok*. Etymologically, it is rather transparent that it is derived from *fallait*, the 3rd person singular imperfect conjugation of French *falloir* ‘must’.

- (ii) a. Fok ou té vini
 must 2SG PST come
 ‘You had to come.’
- b. Falé ou té vini
 must.PST 2SG PST come
 ‘You had to come.’

The assumption that *falé* is an inflected form of *fok* is strengthened by the existence of at least two other forms – *fodré* and *fodra*. Should this assumption prove to be correct, we would then have sound reasons to consider *fok* as a verb. Add to this the fact, illustrated in (iii), that *fodré* can be preceded by the preverbal irrealis marker *sé*, and it becomes all the more reasonable to analyze *fok* as a verb.

- (iii) Sé fodré i vini pli bonnè
 IRR must.IRR 3SG come more early
 ‘He should have come earlier.’

Obviously, if *fok* is to be treated as a verb, we should then assume (a) that it is e-merged inside vP; (b) that it participates in biclausal sentences; and (c) that its subject is an expletive *pro*. The outstanding property of *fok* would in fact be that it manifests verbal inflectional morphology, which is often said to be rather impoverished in French-based creoles (Syea 2017). Because of its diosyncratic properties, I believe that *fok* deserves a paper of its own. I shall therefore ignore this form here.

dwet and *pé* can express a wide range of modal flavors, *sa* and *pou* are more restricted in that regard. Due to their greater versatility, *dwet* and *pé* will constitute the focal point of the paper. Nevertheless, for the sake of completeness, I offer basic data on all four modals, each in its turn.

4.3.1 *Dwet*

In terms of modal force, *dwet* ‘must’ expresses modal necessity, a property it shares with its French etymon *doit*, an inflected form of *devoir* ‘must’. As regards the modal flavors it can encode, it is compatible with both epistemic and root modality.¹³ Its versatility is evidenced in (11). Consider first (11a), where *dwet* expresses epistemic modality. Here, based on the observation that John is yawning and other facts in her knowledge, the speaker asserts that it is necessarily the case that John is tired. That *dwet* can express various flavors of root modality is illustrated in (11b-d). Take, for instance, (11b), where *dwet* marks deontic modality. In this example, the speaker states that based on the basic rules which govern classroom behavior, it is necessary for Mary to listen to the teacher. In (11c), on the other hand, *dwet* expresses teleological modality. In view of her professed goal of becoming rich, it is necessary for Jane to work hard. Finally, (11d) shows that *dwet* can also mark bouletic modality. Here, the speaker declares that in view of Martin’s best interest, notably the preservation of his health, it is necessary for him to go to bed early.

¹³ Anne Zribi-Hertz (p.c.) indicates that her consultants systematically reject deontic readings of *dwet*, especially when its prejacent contains a dynamic verb. My own judgments are not quite as drastic but point in the same direction. This leads me to believe that *dwet* is undergoing specialization towards the expression of epistemic modality. Bernabé (1983) offers a great many examples where *dwet* is used to encode deontic necessity. Hence, it would appear that the specialization of *dwet* is a relatively recent phenomenon which deserves an extensive description. It seems to me, for instance, that it is mainly deontic modality which poses a problem. Other flavors of root modality (e.g. deontic and teleological), on the other hand, are perfectly fine. A study of the lexical restrictions on *dwet* and how they vary among MC speakers must be left for future research. For the time being, let us simply note that the expression of root modal necessity is, as we shall see below, increasingly reserved to *pou*.

- (11) a. Jan ka bayé, i dwet las
 John IMPF yawn 3SG must tired
 ‘John is yawning; he must be tired.’
- b. Mari dwet kouté pwofèsè a
 Mary must listen teacher DEF
 ‘Mary must listen to the teacher.’
- c. Si i lé vini rich, Ján dwet travay red
 if 3SG want become rich Jane must work hard
 ‘If she wants to become rich, Jane must work hard.’
- d. Pou pa tonbé malad, Marten dwet kouché bonnè
 for NEG fall sick Martin must lay.down early
 ‘In order not to get sick, Martin must go to bed early.’

Given the wide range of its uses, *dwet* is one of the two forms I will consider in my investigation of the interaction of modality with tense in MC.

4.3.2 Pé

The second modal under study, *pé*, is the possibility counterpart of *dwet*. Etymologically, it derives from *peut*, an inflected form of French *pouvoir* ‘can’. As exemplified in (12), it can be used to express various modal flavors. It can thus mark epistemic possibility, as in (12a), where the speaker hypothesizes that, in view of the fact that Mark worked last night and other relevant knowledge,¹⁴ it is possible that he is sleeping. Examples (12b-c) show, for their part, that *pé* can also express root modality. This includes teleological modality, as in (12b). For Paul to reach his destination, it is possible for him to take the train. Moreover, *pé* can also be used to encode deontic possibility. This is illustrated in (12c), where it is stated that in light of the rules applied in their workplace, it is possible for the

¹⁴ Other relevant facts may include, for instance, the fact that Mark is not present at the moment when the sentence is uttered, or the fact that his room is maybe unusually silent.

workers to take a break at the time of their convenience. To round out this non-exhaustive exposé on *pé*, consider (12d), which provides evidence that *pé* can express circumstantial modality. In this final example, given the circumstances, most notably environmental ones, the speaker claims that it is possible for coconut trees to grow here.

- (12) a. Mark travay yè oswè. I pé ka dòmi.
 Mark work yesterday at.night 3SG can IMPF sleep
 ‘Mark worked last night. He may be sleeping.’
- b. Pòl pé pran tren pou ay lakay Jozéfin
 Paul can take train for go at Josephine
 ‘Paul can take the train to go to Josephine’s.’
- c. Sé anplwayé a pé pran poz yo lè yo lé
 PL worker DEF can take break 3PL when 3PL want
 ‘The workers may take their break when they please.’
- d. Pié koko pé pousé isi a
 foot coconut can grow here DEF
 ‘Coconut trees may grow here.’

Owing to its obvious versatility, *pé* is the second of the two modal verbs that will be under scrutiny in the paper.

4.3.3 Sa

The third MC modal, *sa*, is etymologically derived from an inflected form of French *savoir* ‘know’. Like its etymon, it is used to express ability modality. Unlike its etymon, however, it does not take nominal arguments. It cannot therefore be used to translate sentences such as *je ne sais pas où il habite* ‘I don’t know where he lives’. To express such meanings, MC recruits a different verb *sav*, which obviously shares the same etymon as *sa*. This parallels

the difference between English *can* and *know*.¹⁵ Thus, *sa* is best translated as *can* (and *sav* as *know*). By way of illustration, consider (13), where the speaker states her ability to sing.

- (13) Man sa chanté
 1SG can sing
 ‘I can sing.’

Unsurprisingly, *sa* is only compatible with agentive subjects. This is reflected in the ill-formedness of (14a),¹⁶ as the inanimate subject *tab* ‘tab’ cannot initiate its own breaking. Note, however, that what qualifies as an agentive subject is not strictly limited to animate entities. Hence, *soley-la* ‘the sun’ satisfies that requirement in (14b). Of course, one may argue that in such uses, *sa* does not encode ability modality, but rather circumstantial modality. At any rate, I hypothesize that this second meaning of *sa* evolved from its original ability meaning. After all, ability and circumstantial modality both fall under the category of what Portner (2009) labels dynamic modality, a category unified by the fact that its interpretation is relative to a circumstantial modal base.

¹⁵ To illustrate this parallel, consider the data below:

- (i) a. John knows/*can how to swim
 b. John can/*knows swim
- (ii) a. Jan sav/*sa ki manniè pou najé
 John know/can wh manner pou swim
 ‘John knows how to swim.’
 b. Jan sa/*sav najé
 John can/know swim
 ‘John can swim.’

In English, a nominal complement such as *how to swim* in (ia) requires that the speaker use *know*. In contrast, with a verbal complement, as in (ib). Similarly, as illustrated in (iia) and (iib) respectively, nominal complements require *sav* and verbal complements *sa*.

¹⁶ Thus, to convey the intended meaning of (14a), the speaker should use *pé*. The resulting sentence would then be *Tab-la pé krazé si ou asiz anlè’y* ‘the table may break if you sit on it’.

- (14) a. *Tab la sa krazé si ou asiz anlè 'y
 table DEF can break if 2SG sit on 3SG
 'The table can break if you sit on it.' (Intended meaning)
- b. Soley la sa séché rad ou
 sun DEF can dry clothing 2SG
 'The sun can dry your clothes.'

Although it would clearly be interesting to determine with greater precision what constitutes an agentive argument, I must leave this topic for subsequent work.

4.3.4 Pou

As stated in fn. 13, *pou* is the privileged form to express root modal necessity. Its obvious etymon is the French preposition *pour* 'for', which was found in the French turn *être pour* + V, which was used in colonial varieties of French to refer to future situations (Syea 2017:200). Given the intricate relation between modality and futurity, I assume that the modal meaning of MC *pou* emerged from this French construction. Synchronically, *pou* may encode various flavors of root modality. This is illustrated in (15). In (15a), *pou* marks deontic necessity. In view of the tax code, it is compulsory for the hearer to pay her taxes in September. In (15b), *pou* expresses teleological modality. In order to reach his intended destination, it is necessary for the hearer to make a left turn. It is also possible for *pou* to encode bouletic modality. Thus, (15c) states that it is necessary for John to listen to his father, as it is desirable for him not to provoke the latter's ire. Finally, (15d) shows that *pou* can also be recruited as a marker of circumstantial modality. Based on the relevant facts (e.g. the lush vegetation, the frequently overcast sky), the speaker makes an assessment about the climate.

- (15) a. Sé lalwa ki kon sa, ou pou péyé lenpo 'w an septanm
 sé law COMP like that 2SG *pou* pay tax 2SG in September
 'That's what the law says, you must pay your taxes in September.'

- b. Ou pou tounen a goch pou ay lakay Mari
 2SG *pou* turn at left for go at Mary
 ‘You should make a left turn to go to Mary’s.’
- c. Jan pou kouté papa ’y si i pa lé gran nonm lan faché
 John *pou* listen father 3SG if 3SG NEG want big man DEF angry
 ‘John must/should listen to his father if he doesn’t want to anger the old man.’
- d. Lapli pou ka tonbé anlo isi a¹⁷
 rain *pou* IMPF fall much here DEF
 ‘It must rain a lot here.’

In light of (15d), one may wonder whether it is also possible for *pou* to receive an epistemic reading. This possibility, however, must be ruled out. The hypothesis that *pou* can express epistemic necessity incorrectly predicts that it should enter in free variation with epistemic *dwet*. By way of illustration, consider the contrast in (16). While *dwet* is ambiguous between an epistemic and a root reading in (16a), *pou* is restricted to a root reading in the minimally different (16b).

¹⁷ One may legitimately wonder whether (15d) does not simply fall under the category of epistemic modality. On this view, the speaker would declare that in all the worlds compatible with a set of facts instantiated in the actual world (e.g. the rich vegetation, the location of the site under discussion, general knowledge of the climate in the relevant region, etc.), it is necessarily the case that it rains a lot there. An equally good translation of (15d) suggested by Anne Zribi-Hertz (p.c.) would be “it probably rains a lot here.” Although this construal is legitimate, I do not consider it superior to the analysis of (15d) as an instantiation of circumstantial modality. Adopting Kratzer’s (1978, 1981, 1991) analysis of modality, I assume a circumstantial modal base as I posit that the speaker’s pronouncement is based on the circumstances described in the text above. As for the ordering source, I hold it to be stereotypical. That is, the possible worlds given by the modal base are ranked on the basis of how well they match expectations of what the actual world is like. For example, it would be expected that it would rain in other places similar to the one under discussion. I view this as an adequate description of (15d), at least as much as one which would involve epistemic modality. Ultimately, what tips the balance in favor of that analysis is the fact that cases, such as (16b), which unambiguously fall under the category of epistemic modality do not tolerate *pou*.

- (16) a. Mark *dwet* enmen Mari
 Mark must like Mary
 i. ‘It is necessarily the case that Mark likes Mary.’ (epistemic)
 ii. ‘It is necessary for Mark to like Mary.’ (root)
- b. Mark *pou* enmen Mari
 Mark *pou* like Mary
 i. #‘It is necessarily the case that Mark likes Mary.’ (epistemic)
 ii. ‘It is necessary for Mark to like Mary.’ (root).

I am thus led to the conclusion that *pou* can express various flavors of root modality, but not epistemic modality. Epistemic necessity remains the exclusive domain of *dwet*.

4.3.5 Summary

This section established that MC possesses four modal verbs: *dwet*, *pé*, *sa* and *pou*. These differ in their degree of specialization. While *sa* and *pou* are limited to the expression of (certain types of) root modality, *dwet* and *pé* are much more versatile. I shall therefore focus on these two modals as I investigate the interaction of tense and modality in MC. But let us first explore the expression of tense in MC.

4.4 The expression of tense in MC

The following section is not meant as an extensive study of the expression of tense in MC. My purpose, here, is simply to provide the reader with a general understanding of MC tense marking and semantics. In doing so, I will follow Bernabé (2003) for the most part.

In line with Klein (1994), I view tense as the grammatical expression of the temporal relation between UT and the so-called topic time, i.e. the time span which a sentence is concerned with. This more or less corresponds with Reichenbach’s (1980 [1947]) Reference Time. As attested in (17), MC distinguishes between two tense features: [PRESENT] and [PAST]. The former is unmarked, as shown in (17a). The latter, on the other hand, is exponed by the preverbal particle *té*, as illustrated in (17b).

(17) a. Jan malad
 John sick
 ‘John is sick.’

b. Jan té malad
 John PST sick
 ‘John was sick.’

It should be noted that the expression of tense is sensitive to *aktionsart*. The case of statives was illustrated in (17), the case of non-statives is in (18). As exemplified in (18a), a bare non-stative is interpreted as denoting an event whose running time precedes UT. In contrast, when a non-stative combines with the past marker, as in (18b), it receives an interpretation similar to the English pluperfect. In other words, the running time of John’s soccer-playing precedes the topic time, which is itself situated prior to UT.

(18) a. Jan jwé boul
 John play ball
 ‘John played soccer.’

b. Jan té jwé boul
 John PST play ball
 ‘John had played soccer.’

Following Bernabé (2003), I assume the presence of an unmarked aspectual feature [PERFECT], which indicates that the running time of the event precedes the topic time. In (18a), it combines with the equally unmarked [PRESENT] feature. The topic time is read as simultaneous with UT and as following the culmination point of the event. In the end, (18a) simply indicates that John played football at some time *t* which precedes UT. The same analysis can be applied to (18b), modulo the fact that *té* contributes a [PAST] feature, which places the topic time at some *t* before UT.

This analysis departs from Bickerton’s (1981) well-known claim that creoles do not have indexical past tense, but rather what he labels anterior tense, i.e. a relative past tense.

I take Bernabé's (2003) to be superior, on the grounds that it rightly predicts the relative ordering of the past marker *té* and the adverbial *ja* 'already'. The latter, according to Cinque's (1999) hierarchy, is merged in the Spec of T(Ant)P, a projection dominated by T(Past)P. The fact that, as shown in (19), *té* must precede *ja* suggests that the former is indeed merged in T(Past).

(19) a. Jan té ja manjé
 John PST already eat
 'John had already eaten.'

b. *Jan ja té malad

As for the expression of futurity, as illustrated in (20a), MC uses the preverbal particle *ké*, which I take to be a modal of sorts, the equivalent of Abusch's (1985) *woll*. Bernabé (2003) rightly remarks that *ké* cannot be analyzed as a [FUTURE] tense feature on the grounds that, as shown in (20b), it can cooccur with *té*, the spell-out of the [PAST] tense feature. On the assumption that the topic time cannot be simultaneously located in the past and the future, I assume that *ké* is merged in a different and lower functional head, Woll.

(20) a. Jan ké manjé tout pla diri a
 John WOLL eat all plate rice DEF
 'John will eat the whole plate of rice.'

b. Jan té ké manjé tout pla diri a
 John PST WOLL eat all plate rice DEF
 'John would have eaten the whole plate of rice.'

To recap, in MC we have seen that two tense features can be merged in T: [PAST] and [PRESENT]. The former is marked by *té*, while the latter is unmarked. As for future, it is marked by *ké*, which I take to be modal-like particle, merged in a lower position than TP. The next section discusses the interaction of tense and modals in MC.

4.5 Modals-tense interactions in MC: the data

Now that we know enough about MC modals and the expression of tense in the language, we are ready to investigate the interaction of these two categories. As a first step in this endeavor, let us look at (21), where the bare modals are ambiguous between a root and an epistemic reading.

- (21) a. Mari dwet enmen lékol
Mary must like school
'Mary must like school.' (epistemic and root)
- b. Mari dwet gadé fim lan
Mary must watch film DEF
i. 'Mary must have watched the film.' (epistemic)
ii. 'Mary must watch the film.' (root)

On its epistemic reading, (21a) can be rephrased as 'it is necessarily the case that Mary likes school'. On the root reading, it can be interpreted as 'it is necessary for Mary to like school'. Similarly, (21b) has both an epistemic ('it is necessarily the case that Mary watched the film') and a root reading ('it is necessary for Mary to watch the film'). In all cases, the modal is evaluated at UT. This first observation does not allow us to determine whether root and epistemic modals differ in their scope relation with tense. On the view that tense scopes over both root and epistemic modals, the examples in (21) would contain an unmarked [PRESENT] tense feature on T. In order to assess whether this holds, we need to examine the behavior of MC modals with respect to *té*, the past tense marker.

Cinque's (1999) Universal Hierarchy predicts that *té*, the past tense marker, should follow epistemic modals, but precede root modals. At first sight, this prediction appears to be borne out, as shown in (22).

- (22) a. Pol dwet té enmen lékol
Paul must PST like school
'Paul must have liked school.' (epistemic only)

- b. Pol té dwet enmen lékol
 Paul PST must like school
 ‘Paul had to like school.’ (root only)

We would then have reason to posit that MC modals are functional verbs and that their flavor affects their scope relations with tense. Such a conclusion, however, is called into question by (23), adapted from Bernabé (1983:1046), where the root modal intervenes between two occurrences of *té*.

- (23) Piè té dwet té ja rivé¹⁸
 Peter PST must PST already arrive
 ‘Peter should have already arrived.’ (root)

On the assumption that there can only be one occurrence of *té* per clause, (23) entails that MC root modals participate in biclausal structures. This suggests that they are main verbs, rather than functional verbs. They are then likely to be first-merged in the VP, rather than in the middle field. This hypothesis finds support in (24), taken from Bernabé (1983:1040), where a root modal is sandwiched between two occurrences of *pa*, the negative marker.

- (24) I pa pé pa palé
 3SG NEG can NEG speak
 ‘He cannot not speak.’

Note that, as illustrated in (25a) and (25b), both the pre-modal and the post-modal occurrence of negation can license an NPI.

¹⁸ Anne Zribi-Hertz (p.c.) notes that her consultants reject (23) as ungrammatical and suggests that there may be two grammars of MC. This requires further investigation and opens up the possibility that in the grammar instantiated in her consultants’ acceptability judgments, MC modals are functional verbs. This hypothesis should be thoroughly tested out, in particular as regards the distribution of modals with respect to the preverbal TAM markers. I must, unfortunately, leave this for further research.

- (25) a. Piè pa pé lévé an ti dwet
 Peter NEG can lift a little finger
 ‘Peter cannot lift a finger.’
- b. Piè pé pa lévé an ti dwet
 ‘Peter can not lift a finger.’

I take this to mean that both occurrences of negation in (24) are sentential, which validates the hypothesis that MC root modals are merged in biclausal structures. Thus, they must be analyzed as main verbs, rather than functional verbs. It remains to be determined whether this analysis extends to epistemic modals.

To assess whether it is so, I shall use negation one more time as a diagnosis to determine whether MC epistemic modals participate in biclausal structures. As exemplified in (26a), they can be sandwiched between two occurrences of negation. That both are markers of sentential negation is illustrated in (26b,c), where they are shown to license NPIs.

- (26) a. Linda pa dwet pa sav sa
 Linda NEG must NEG know that
 ‘Linda cannot not know that.’
- b. Linda dwet pa fè an hak
 Linda must NEG do a thing
 ‘It is possible that Linda did not a thing.’
- c. Linda pa dwet fè an hak
 ‘It is not possible that Linda did a thing.’

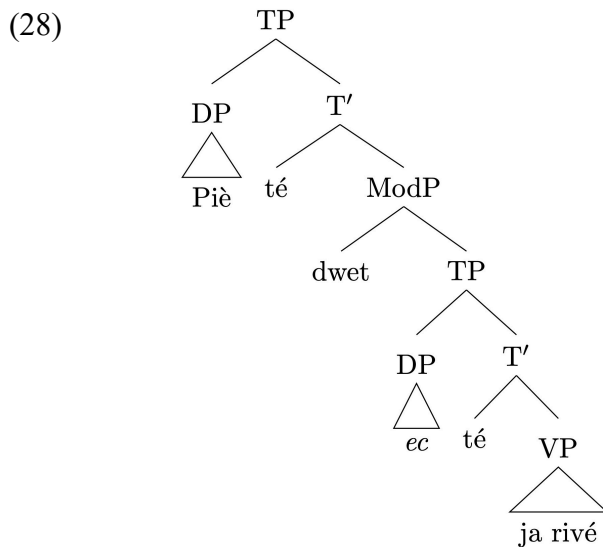
We can, then, safely conclude that, in line with their root counterparts, MC epistemic modals appear in biclausal structures. This, in turn, suggests that they too are main verbs.

This view is buttressed by the very fact that MC epistemic modals can be preceded by negation. Since, as illustrated in (27), sentential negation can precede *té*, the past tense

morpheme, it is reasonable to assume that a TP node is found above MC epistemic modals.

- (27) Mark pa té sav sa
 Mark NEG PAST know that
 ‘Mark didn’t know that.’

This again suggests that MC epistemic modals appear in structures with two TP nodes – one above the modal and one below it.¹⁹ A simplified representation of (23) would thus take the form of (28).



Stronger evidence comes from modals in SoT contexts. By way of illustration, consider (29), where the embedded epistemic modal is preceded by *té*. This, I take to provide additional support for the hypothesis that MC epistemic modals are dominated by a TP node.

- (29) André té asiré ki Mari pa té pé sav sa
 Andrew PST sure COMP Mary NEG PST can know that
 ‘Andrew was sure that Mary couldn’t have known that.’

¹⁹ See Appendix A, where I demonstrate that both root and epistemic modals are raising verbs in MC.

Of course, as in other languages (see the discussion of (4) and (5)), the embedded modal in this type of examples is evaluated at the running time of the embedding attitude predicate.

Moreover, although this is rare, it is possible to find an epistemic modal preceded by *té* in a matrix clause. Examples of this type mirror those proposed by von Stechow and Gillies (2008), as shown in (30).

- (30) A: Why did you look in the freezer?
B: I té pé ni glas
3SG PST can have ice-cream
'There might have been ice-cream.'

As mentioned above, the modal in such sentences is evaluated with respect to the set of beliefs the speaker held at some time *t* in the past. I take these sentences to provide further evidence for the presence of a TP projection above epistemic modals. Similarly, they also strengthen the hypothesis that MC epistemic modals are merged in the VP.

We have thus established that MC modals, regardless of their interpretation, are merged in the VP and that a TP node is found in their extended projection. This observation is of crucial import to the first research question identified in section 4.2.3: is there a correlation between the flavor of a modal and its scope relation with tense? Given the presence of TP node above both root and epistemic modals, it is expected that their interpretation should be freely determined by the tense features borne by the immediately c-commanding T node. There should therefore be no difference in the temporal interpretation of root and epistemic modals. However, recall (22), where it was shown that when preceded by the past marker, a MC modal will generally receive a root reading. Cases such as (30) where an epistemic modal can be preceded by the past marker do not constitute the norm. The rarity of these examples (see van Dooren 2020) suggest that there are some general restrictions on the temporal interpretation of an epistemic modal. To be specific, in root contexts, epistemic modals tend to be interpreted at UT. When embedded under an attitude, they tend to be interpreted with respect to the running time of that attitude. This is very much in keeping with the observations made in section 4.2.1. In other words, there is

nothing original about MC when it comes to the correlation between the flavor of a modal and its scope relation with tense.

This does not, however, mean that the study of MC modals is of no interest. As a matter of fact, recall the second research question raised in section 4.2.3. Namely, how are these scope relations encoded? The fact that both root and epistemic modals are lexical verbs implies that they are in the scope of a T node, which militates against a positional account à la Cinque (1999). Consequently, I hold that an adequate analysis of modality-tense interaction in MC should instead adopt the spirit of Zagona (2007, 2008), i.e. explore how a difference in features can account for the distinction between root and epistemic modals. At any rate, the main takeaway which emerges from the present study of MC modals is that a purely structural account of modality-tense interactions is not universally available.

In summary, this section has shown that MC modals are not functional verbs, a conclusion which echoes Bernabé (1983), where it is argued that they do not qualify as auxiliaries. The fact that they are lexical verbs instead entails that they are in the c-command domain of T.²⁰ This has implications for both our research questions. First, as regards the scope relations of tense and modality, we have seen that MC data strengthen the cross-linguistic observation that the flavor of a modal affects its scope relations. Second, the fact that MC modals participate in biclausal structures and that epistemics can be preceded by *té*, the past marker,²¹ suggests that a purely positional account is not available. A feature-based account is therefore to be preferred. In the next section, I return to the scope relation of epistemic modals with tense and propose that the restrictions on their temporal construal is not just a tendency, but a result of the fact that their interpretation is relative to an attitude holder. Section 4.7 then offers a feature-based account of the

²⁰ Strictly speaking, the fact that MC modals do not qualify as auxiliaries does not exclude the possibility that they may be c-commanded by a T node. However, the fact that they can intervene between two occurrences of the past marker, as in (23), invalidates their analysis as auxiliaries. Thanks to Daniel Valois (p.c.) for pointing this out to me.

²¹ Other diagnostic tests of mono-/biclausality, such as clitic climbing and auxiliary choice (Cinque 1982; Cardinaletti and Shlonsky 2004) do not obtain in MC. The position of preverbal markers vis-à-vis modals does, however, allow for a reliable assessment of mono-/biclausality.

distinction between epistemic and root modals. Section 4.8 explores the cross-linguistic implications of the proposal.

4.6 Revisiting the scope relation between epistemic modals and tense

At the end of section 4.2.2, we concluded that the observation that epistemic modals scope over tense may be a tendency, rather than an absolute. In the present section, however, I would like to revisit this statement and propose that, in fact, this apparent tendency results from a universal relation between epistemic modals and the higher portion of the left periphery where discourse/pragmatic roles are encoded (see, i.a., Speas and Tenny 2003; Tenny and Speas 2004; Haegeman and Hill 2013; Wiltschko 2014; Haegeman 2014). This proposal is rooted in the well-known fact that epistemic modals are speaker-oriented and root modals subject-oriented (Palmer 1986).

4.6.1 The so-called speaker orientation of epistemic modals

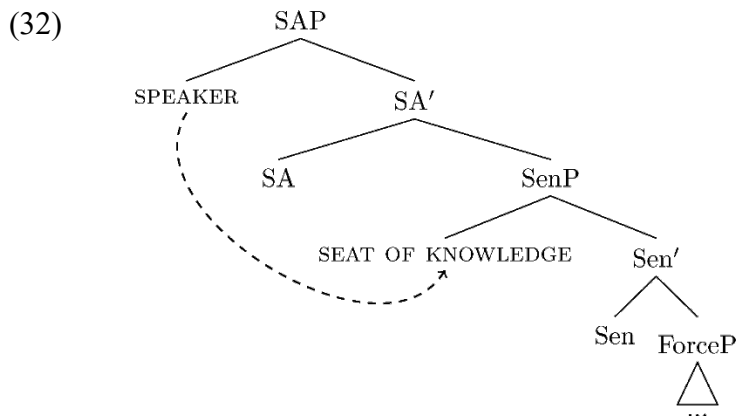
The claim that epistemic modals are speaker-oriented is not entirely accurate; it is only true of main clauses. Consider again the Norwegian example (5), repeated here as (31). What is relevant to the interpretation of the embedded modal is not the speaker's set of beliefs, but rather Marit's, the subject of the embedding attitude.

- (31) Marit påstod at Jon måtte være morderen
Marit claimed that Jon must.PST be killer-DEF
'Marit claimed that Jon had to be the killer.'

We should therefore replace the claim that epistemic modals are speaker-oriented with the more accurate one that they are oriented toward a sentient mind (Speas and Tenny 2003). In other words, their evaluation is relative to the set of facts held to be true by an entity endowed with sentience. In matrix clauses, that sentient mind simply happens to be the speaker. In embedded contexts, it is the subject of the embedding attitude, but, crucially, it cannot be just any contextually salient entity (Stephenson 2007). This observation raises

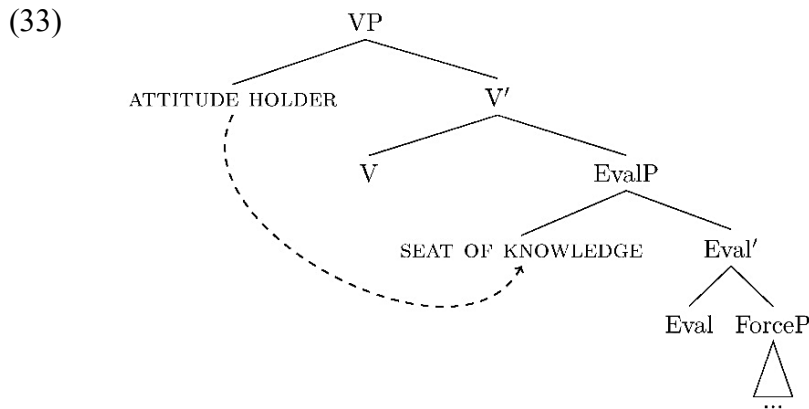
the question of whether the identification of the relevant attitude holder is determined by the semantics of attitudes (Stephenson 2007; Anand and Hacquard 2009) or by the syntax.²² I shall argue for the latter hypothesis.

In support of this claim, consider Speas and Tenny (2003) where it is proposed that pragmatic roles are syntactically encoded. They posit, for instance, an abstract Speech Act Phrase (SAP) where the equally abstract pragmatic roles of Speaker and Hearer are encoded. Even more relevant to the present discussion is their postulate that the clause also contains a Point-of-View/Sentience domain. Within this domain is assigned the abstract pragmatic role of Seat of Knowledge, ie. the sentient entity “who can evaluate, or process, or comment on the truth of a proposition” (Speas and Tenny 2003:332). This pragmatic role is notably involved in the interpretation of epistemics and is assigned to the Spec of an abstract Sen(tience) P(hrase) placed below SAP and above ForceP (Tenny and Speas 2004; Hill 2007; Haegeman and Hill 2013; Haegeman 2014; Cruschina and Remberger 2018). The identity of the Seat of Knowledge is determined syntactically. In a matrix clause, as illustrated below in (32), the identity of the Seat of Knowledge must match that of the c-commanding Speaker.



²² It is, of course, necessary that the embedding attitude be of the right type for an epistemic modal to be licensed in its complement clause (Anand and Hacquard 2009). However, this is only part of the story. It is equally, if not more, important that the embedding clause be of the appropriate type and size. I expound on these ideas below. Of equally crucial import is the fact that in a series of embedding attitudes, it is the subject of the immediately embedding attitude which qualifies as the attitude holder.

In an embedded clause, as shown in (33), it is the c-commanding attitude holder which determines the identity of the Seat of Knowledge.



This approach suggests that the grammaticality of an epistemic modal depends on the projection of SenP. This makes interesting predictions. Take, for instance, the well-documented fact that epistemic modals cannot be found in the infinitive (Marrano 1998:65-66).²³ This is illustrated in (34), where the French modal *pouvoir* ‘can’ may only receive a root reading.

- (34) *Pouvoir lire ce livre en cinq heures me semble impossible*
 can.INF read.INF this book in five hours me seems impossible
- i. #‘That it is possibly the case that this book is read in five hours seems impossible to me.’ (epistemic)
 - ii. ‘That it is possible for this book to be read in five hours seems impossible to me.’ (root)

If one assumes that finiteness is related to clause size, this finds a straightforward explanation. Satik (2021), for instance, argues that infinitival clauses are truncated, insofar

²³ But see Eide (2003) who claims that Norwegian modals can appear in the infinitive. I do not, however, take the examples she offers as conclusive evidence against this generalization. The validity of her claim depends on how one defines what an infinitival clause is. Morphology alone does not suffice in diagnosing finiteness.

as they do not project as high as Rizzi's (1997) ForceP. An infinitival clause is therefore predicted to lack the Sentience Domain which is critical to the evaluation of an epistemic modal. Hence, their unavailability in infinitival clauses.

By the same token, it is predicted that any construction or item which depends on the Sentience Domain for its interpretation should be ill-formed in infinitival clauses. Hence the oddness of (35), which contains the evaluative adverb *regrettablement* 'regrettably'.

- (35) (#Regrettablement) aimer (#regrettablement)le lait me déçoit
 regrettablely like.INF regrettablely the milk me disappoints
 'To regrettably like milk disappoints me.' (Intended)

I take the above facts as evidence for the critical role played by the Sentience Domain and the related Seat of Knowledge in the interpretation of epistemic modals. This in turn provides support for the view that it is the syntax which is responsible for the identification of the sentient entity whose set of beliefs is relevant to the evaluation of an epistemic modal.

To sum up, I propose that epistemic modals are oriented toward the Seat of Knowledge. The latter's identity is determined syntactically. In root clauses, it is the Speaker. In embedded clauses, it is the attitude holder. No other choice is possible. In the next section, I argue that this line of reasoning can help us make sense of the temporal interpretation of epistemic modals.

4.6.2 The role of the center of deixis in the interpretation of epistemic modals

Echoing the observations made in section 4.6.1, Stephenson (2007) argues that a judge parameter is involved in the interpretation of epistemics. Significantly, she adds two more parameters: a time and a world parameter. Thus, an unembedded epistemic modal is evaluated with respect to the speaker, the time of utterance and the world of reference. If, on the other hand, it is embedded under an attitude, an epistemic must be evaluated with respect to the subject of that attitude, the running time of that attitude and its world of

evaluation. This proposal has similarities with both Zagona (2007) and Hacquard (2006). The former argues that the evaluation of an epistemic modal is tied to the center of deixis, a notion which includes not only the speaker, but also the here and now of the utterance. Hacquard (2006), for her part, puts forward the more general hypothesis that the interpretation of a modal is in fact relative to an event. That event, in the case of an epistemic modal, is the speech event. An epistemic modal is therefore temporally anchored to the time of utterance. The line of reasoning which underlies these three proposals (Hacquard 2006; Stephenson 2007; Zagona 2007) can help us understand the restrictions which apply to the temporal interpretation of epistemics.

Indeed, there seems to be a condition which imposes that the judge and time parameters²⁴ cannot be set independently. In a matrix clause, leaving aside the examples produced by von Stechow and Gillies (2008),²⁵ a typical epistemic modal is evaluated with respect to the speaker and UT, and not just any time. Likewise, in an embedded context, the evaluation of an epistemic modal is relativized to the subject of the attitude and its running time, rather than just any time. This pattern, which is clearly not accidental, is elegantly captured by Hacquard's (2006) proposal that the evaluation of an epistemic is tied to the speech event or to the embedding attitude. Yet, I shall not adopt her analysis here owing to the fact that it relies on the critical postulate that epistemic and root modals are merged in distinct positions with respect to Tense.²⁶ I shall, nonetheless, hold on to the intuition which underlies her account, viz. the fact that the interpretation of an epistemic modal is relative to the here and now of the Seat of Knowledge.

Again, I propose that the Sentience Domain in general, and the SenP layer in particular, play a pivotal role in the evaluation of epistemic modals. They must be interpreted with respect to the Seat of Knowledge and not just any sentient entity. Crucially, in section 4.6.1, I argued that the identity of the Seat of Knowledge is determined

²⁴ In this paper, I limit my focus to these two parameters.

²⁵ I shall return to these in the next subsection.

²⁶ Hacquard (2006) argues that, owing to the fact that they are externally merged below TP, root modals are interpreted in relation to the prejacent event. By the same token, because epistemic modals are externally merged about TP, their interpretation is tied to the speech event. Given our conclusion that MC modals are merged in the ν P, regardless of their flavor, it follows that Hacquard's analysis does not apply.

syntactically. Building on this observation, I now propose that Sen has event-like properties and that it is therefore temporally anchored. Again, I assume that Sen's temporal specification are determined syntactically. To be more precise, they must match those of the closest appropriate event-like c-commanding head. In matrix clauses, it will be the head of SAP. In embedded contexts, it will be the ν associated with the embedding attitude. Thus, it stands to reason that all the parameters relevant to the evaluation of an epistemic modal are determined by the features associated with the Sentience Domain. Hence the severe limitations on the temporal interpretation of epistemics, which (1) is meant to capture.

This proposal, however, faces an obvious challenge, at least when it comes to MC. Recall that MC epistemic modals, like their root counterparts, are merged in a V head. This means that TP intervenes between the epistemic and SenP. We would therefore expect the tense features on T to be able to affect the temporal interpretation of an epistemic modal, which entails that there should be no restrictions on the modal's time of evaluation.²⁷ That this does not obtain suggests that the intervening T must be in some way defective. This is in fact the assumption which lies at the basis of Zagana's (2008) suggestion that English epistemic modals differ from their root counterparts in the fact that they are merged with an uninterpretable tense feature. I shall return to this issue in section 4.7. For the time being, let us assume tentatively that the TP layer in the extended projection of an epistemic modal must have some special property which deprives it of its ability to affect the temporal construal of epistemic modals. It must be transparent so as to allow the tense features of the epistemic modal to match those associated with the Sentience Domain.

To sum up, in this section I propose that the judge, time and world parameters which participate in the evaluation of an epistemic modal must all match the features associated with the SenP projection. These, as we have seen, are determined syntactically. Although it raises questions about the featural properties of the T node, this proposal offers a straightforward account for the severely constrained interpretation of epistemic modals. This obviously runs counter to, e.g., Rullmann and Matthewson (2018) who claim that

²⁷ Of course, the time of evaluation of the epistemic modal would be restricted by the tense features on T. However, given that T's tense features are independent of the time specifications of the Sentience Domain, there would be no obligatory link between these time specifications and the time of evaluation of the modal.

epistemic modals scope under tense and that their time of evaluation is therefore unconstrained. In the next section, I shall therefore offer a reanalysis of the facts on which such claims are founded.

4.6.3 Shifting the perspective

Rullmann and Matthewson (2018) argue that there is no difference between epistemic and root modals insofar as they are both interpreted in the scope of tense. In support of this claim, they draw examples from or inspired by von Stechow and Gillies (2008) where it appears that an unembedded epistemic modal can be interpreted at some time other than utterance time (UT). This is illustrated in (7b), reproduced here as (36), where B's reply contains an epistemic modal which must be evaluated at some time t prior to UT.

- (36) A (talking about what B did yesterday): Why did you look in the freezer?
B: The ice cream might have been/had to be in there (#today).

This obviously goes against the account I suggested in section 4.6.2, namely the proposal that the time of evaluation of an unembedded epistemic must match the time of utterance. Note, furthermore, that the unacceptability of *today* in B's reply argues against an analysis à la Boogaart (2007). This cannot be analyzed as a case of free indirect discourse, where the epistemic could be analyzed as embedded under an implicit attitude. Yet, as I shall show below, this does not invalidate my proposal that the defining characteristic of epistemic modals is that their interpretation depends on a SenP layer in their extended projection.

As a matter of fact, the critical element in (36) is A's question, as it implies that B's answer contains an elided *because*. It should therefore read as (37), where the elided material is crossed out.

- (37) ~~Hooked in the freezer, because~~ the ice cream might have been/had to be there.

Stephenson (2007:506) conjectures that "in *because*-clauses that express a person's conscious reasoning or rationale, the judge parameter is shifted to the person whose

reasoning is involved.” Consider (38), adapted from her (61), which itself builds upon Egan et al. (2005).

(38) [Context: Ann is planning a surprise a party for Bill. Unfortunately, Chris has discovered the surprise and told Bill all about it. Now Bill and Chris are having fun watching Ann try to set up the party without being discovered. Currently Ann is walking past Chris’s apartment carrying a large supply of party hats. She sees a bus on which Bill frequently rides home, so she jumps into some nearby bushes to avoid being spotted. Bill, watching from Chris’s window, is quite amused, but Chris is puzzled.]

Chris: Why is Ann hiding in the bushes?

Bill: I might be on that bus.

Bill is obviously aware that he is not on the bus. Yet, his answer to Chris’s question is perfectly acceptable on the grounds that it features an elided *because*, which causes the perspective to be shifted from Bill’s to Ann’s. Because she does not know that Bill is in his apartment watching her, she can make the reasonable guess – in view of what she knows – that it is possibly the case that Bill is on the bus. As for Bill, adopting Ann’s point of view, he can legitimately utter that sentence. A *because*-clause can therefore trigger a shift in the judge parameter.

Now, I would like to extend this proposal to the time parameter. In support of this claim, I offer (39), a slight variation on (38). Assume this time that Chris and Bill are watching a video-surveillance tape of the previous day, in which they see Ann jumping into the bushes.

(39) Chris: Why did Ann hide in the bushes?

Bill: I might have been there (#today)./I might be there (today).

There is a clear parallel between Bill’s answer in (39) and (36B). In both cases, the epistemic modal can be said to be interpreted with respect to some time *t* prior to UT. In both cases, I assume that an elided *because* triggers a shift in the perspective, which affects both the judge and the time parameter. In (39), this is quite clear as the perspective is that

of Ann on the previous day. In (36B), in contrast, only the time parameter is shifted, while the judge parameter remains the same. This, however, is only accidental, as it simply reflects the fact that A's question in (36) requires an answer given from B's perspective at some time *t* in the past. In both cases, the reader will have noticed that, despite the change in perspective, the indexical temporal adverb *today* is unacceptable. Likewise, in both (38) and (39), the first-person pronoun refers to Bill, not Ann, despite the shift in perspective. Therefore, although a *because*-clause causes a shift in judge and time parameters, it does not license a shift in the interpretation of indexicals. Note also that Bill's answer in (39) could not have been *I might be there (today)*, as the modal would then have to be evaluated with respect to Ann's epistemic base at utterance time. All these properties stem from the fact that in these examples the epistemic modal is embedded inside a *because*-clause.

A full exploration of *because*-clauses is beyond the scope of the present paper, but I would like to tentatively suggest that they affect the Sentience Domain but not the interpretation of lexicals. Should this be on the right track, we could then make sense of the fact that an apparently unembedded epistemic modal can be evaluated with respect to a judge different from the speaker and at a time different from the time of utterance. This resembles the shift we observed in regard to embedding attitudes, modulo the effects on the interpretation of indexicals. I am therefore able to preserve the analysis sketched out in section 4.6.2, as these shifted readings all involve some form of embedding which, I posit, has an effect on the features borne by *Sen* and, by way of consequence, the epistemic modal. Crucially, in all the cases we have seen, the epistemic modal is always interpreted with respect to a specific triple consisting of three variables: a judge, a time and a world. These values cannot be set independently of one another, as they all must match *Sen*'s features.

In summary, I have proposed an account of the interactions between epistemic modals and tense centered around the view that epistemics are evaluated with respect to three parameters: a judge parameter, a time parameter and a world parameter (Stephenson 2007). Crucially, I hold that all three parameters must match the specifications of the Sentience Domain which occupies the higher portion of the left periphery (Speas and Tenny 2003). I further argue that the specifications of the latter projection are determined

syntactically. This accounts for the fact that an epistemic in a root clause is interpreted relatively to the speaker, the time of utterance and the world of reference, which points to the role of the Speech Act Phrase in this syntactic environment. When a modal is, on the contrary, embedded under an attitude, it is evaluated with respect to the attitude holder, the running time and the world of evaluation of that attitude. As for these cases where an epistemic modal in a matrix clause is evaluated with respect to some time *t* other than UT, I have argued that these are in fact instantiations of covert embedding under either an implicit attitude (Boogaart 2007) or a *because*-clause (Stephenson 2007). In all cases, this results in a shift in the perspective according to which the epistemic is evaluated. I am therefore led to reject the view that the time of evaluation of an epistemic simply depends on the independent tense specifications of a c-commanding T node. This obviously raises questions about the nature of this node in a language such as MC, where, I have argued, both epistemic and root modals are merged in a *v*P and are therefore in the scope of a T head. In the next section, I offer a technical implementation of these ideas.

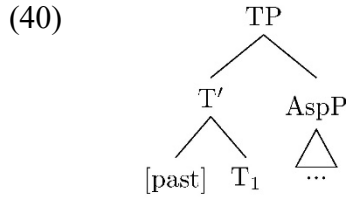
4.7 A feature-based account of the root/epistemic distinction

As stated in the previous section, I hold that the key difference between root and epistemic modals is the latter's dependence on the SenP projection for their interpretation. As a result, the evaluation of an epistemic is relative to both the Seat of Knowledge and the associated time of evaluation. The analysis I propose in the present section is meant to capture these intuitions.

Prior to the presentation of that analysis, I would like to return to Zagana's (2008) account of the root/epistemic distinction as applied to English modals. Recall that she adopts the view that all English modals are merged in T, which entails that their scope relation with tense cannot be given a strictly positional analysis. She therefore suggests that the difference between root and epistemic modals lies in the (un)interpretability of their tense feature. Root modals, she hypothesizes, are merged with an interpretable and valued tense feature, but epistemic modals with an uninterpretable and unvalued tense feature. Consequently, epistemic modals must search for a goal which can value their tense feature. In order to do so, they must look upward to C. The latter, because it is the locus of the

center of deixis, is associated with UT. This captures the fact that an unembedded epistemic modal must be evaluated at UT. This proposal, however, raises questions. To begin with, how is it to be adapted to a language such as MC, where modals are merged not in T, but in a V head? As a matter of fact, under Zagona's analysis, the fact that English modals are merged in T makes it hard to determine whether the tense feature they are associated with is a feature of the modal or a feature of T. If one were to adopt Zagona's analysis and transpose it to the study of MC modals, then at least two options would be possible: (i) assume that it is the modal which has either an interpretable or an uninterpretable tense feature, or (ii) assume that it is T which has either an interpretable or an uninterpretable tense feature. The second alternative attributes the difference between root and epistemic modals to the features of another head. It is therefore counterintuitive. However, it does capture the fact that the T node in the extended projection of an epistemic modal must be in some way transparent, so that it allows the tense feature on the epistemic to be valued by Sen. As for the first alternative, it is in principle more attractive, as it traces the difference between root and epistemic modals to an intrinsic property. However, it does not of itself explain why T should be transparent when the modal receives an epistemic interpretation. Neither alternative is therefore entirely satisfactory of itself. I shall therefore propose an analysis that combines the advantages of both options.

One more step is needed, however, as I need to make clearer the conception of tense which underlies my proposal. Indeed, I assume a pronominal view of tense (Partee 1973; Zagona 1993, 2007; Stowell 1993, 1996, 2007; Bochnak 2016). Of the various implementations of this approach, I shall opt for Bochnak's (2016), which is also adopted by Rullmann and Matthewson (2018). On this view, TP is headed by a temporal pronoun, which receives its value from the assignment function g , and is adjoined to a tense feature. The latter is a partial identity function which imposes a presupposition on that temporal pronoun. By way of illustration, I offer (40). Here, the [past] tense feature, whose denotation is given in (41), imposes that the temporal pronoun T_1 be located at some time t prior to UT.



(41) $[[\text{past}]]^{g,c} = \lambda t: t < \text{UT}. t$

This view of tense features as presuppositions shall be of crucial import.

As a matter of fact, my analysis relies on the postulate of a peculiar tense feature inspired by Irimia's (2017, 2018) work on indirect evidentials. These can be likened to epistemic modals insofar as they rely for their interpretation on the center of deixis. To account for this property, Irimia posits a [coin(cidence)] feature which can be relativized to the relevant parameters. An indirect evidential can thus bear the feature set [+coin_t, coin_w], which signifies that both its time and world parameters must coincide with the relevant components of the center of deixis, viz. UT and the world of reference. This is achieved through the mediation of the SenP layer, which I have argued also plays a critical role in the evaluation of epistemic modals. Therefore, I would like to present a slight variation on Irimia's proposal. While she proposes that the [coin] feature can be relativized to the tense parameter, I suggest instead that [coin] may be thought of as a possible value for the tense feature.²⁸ To highlight the particular significance of sentience, I shall relabel this feature value as [sen(tience)]. Its denotation is given in (42), where t_{sen} designates the time of evaluation associated with the SenP layer.

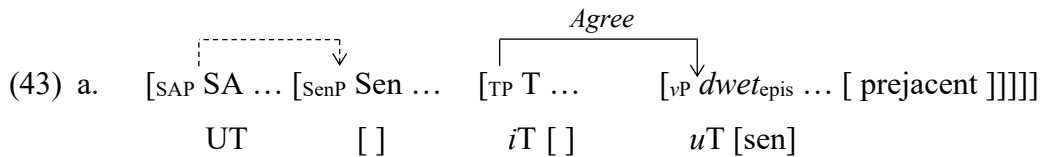
(42) $[[\text{sen}]]^{g,c} = \lambda t: t = t_{\text{sen}}. t$

I take this to mean that the temporal pronoun in TP must be coindexed with the one in SenP. The difference between epistemic and root modals should thus be traced to [sen]. Epistemic modals, I propose, bear a [sen] tense feature, while root modals do not. This reflects the fact that, unlike epistemics, root modals are not evaluated with respect to the

²⁸ This paper focuses on the temporal interpretation of modals, but I assume that a similar approach can be adopted with respect to the judge and world parameters.

center of deixis. Their temporal interpretation is in fact comparable to that of ordinary lexical verbs, but recall that in MC both root and epistemic modals are lexical verbs. Let us then explore how this [sen] tense feature affects the temporal interpretation of epistemics so that it differs from that of typical lexical verbs.

In section 4.6, I suggested that the T node in the extended projection of an epistemic is defective in the sense that it should be “transparent” to allow the epistemic to be evaluated at either UT or the time of the embedding attitude, i.e. the tense specifications of the SenP layer. Zagona (2008) achieves this by postulating that English epistemic modals bear an uninterpretable and unvalued tense feature. However, Pesetsky and Torrego (2007) argue that uninterpretable features are not necessarily unvalued. Likewise, an interpretable feature is not necessarily valued. Now, as regards that “transparent” T node, in line with standard minimalist assumptions, I hold that it bears an interpretable tense feature, given its semantic contribution to the interpretation of the sentence. Its transparency must therefore be attributed to some other property. I propose that this property is the fact that its tense feature is unvalued. Indeed, because it lacks a tense feature, T must search its c-command domain to value its tense feature. It thus enters an Agree relation with the epistemic modal and its [sen] tense feature, as illustrated in (43a). Consequently, T’s tense feature is valued as [sen], which implies that T qua temporal pronoun must be coindexed with its counterpart in Sen, as reflected by the dashed line in (43b). As for the temporal pronoun in Sen, it must be coindexed with another temporal pronoun, viz. the one found in SA.^{29,30} It thus ends up with the same index as UT. In the end, (43c) obtains. That is, T is coindexed with UT and the epistemic modal is interpreted at UT.



²⁹ I remain agnostic as regards the nature of that relation, whether it instantiates a form of pronoun binding or whether it is the result of an Agree relation.

³⁰ If, on the other hand, the modal is embedded under an attitude, the temporal pronoun in Sen will be bound by a c-command tense pronoun associated with that attitude.

- b. $[\text{SAP SA} \dots [\text{SenP Sen} \dots [\text{TP T} \dots [\text{vP } dwet_{\text{epis}} \dots [\text{prejacent}]]]]]]$
 UT UT iT [sen] uT[sen]
- c. $[\text{SAP SA} \dots [\text{SenP Sen} \dots [\text{TP T} \dots [\text{vP } dwet_{\text{epis}} \dots [\text{prejacent}]]]]]]]$
 UT UT iT[sen; UT] uT[sen; UT]

This mechanism may, admittedly, appear rather stipulative and one may wonder whether we could do away with some of the ingredients this analysis relies on. However, it seems to me that they are all necessary.

Consider the following three issues which all militate in favor of that account. First, the conjecture of a [sen] feature on the epistemic modal is not gratuitous, as it captures the fact that epistemic cannot be embedded under just any verb. Second, if we allow the T node to be valued with, e.g. [past], and if the epistemic modal bears an unvalued tense feature, there will then be a disconnect between the interpretation of epistemics and their syntactic environment. This would be an unfortunate result, as we would fail to capture the correlation between the interpretation of epistemics and their syntactic environment. In other words, an epistemic modal could then be interpreted at any time other than UT, whether it appears in a matrix or an embedded clause. Third, if T bore a valued tense feature, e.g. [past], and the modal a [sen] tense feature, then two problems would arise. The first one is that there might be no reason for T and the modal to enter into an Agree relation at all. The uninterpretable tense of the modal would then remain undeleted, which would cause the derivation to crash. Even if we take a somewhat more liberal view of [sen] and assume that it does not prevent a probe-goal relation between T and the epistemic modal, the derivation will still crash. Indeed, T would end up with the feature set [+past, sen]. This would result in an unacceptable logical form, since the presuppositions associated with [past] and [sen] are incompatible, as indicated by their respective denotations in (41) and (42). Given these three issues, I maintain that all the ingredients invoked here are necessary.

Let us now consider the case of MC root modals. As stated above, their derivation does not cause any significant problem. They are merged with an unvalued uninterpretable tense feature. Meanwhile, T bears an interpretable valued tense feature. Because the modal's tense lacks a value, it will enter an Agree relation with T. The time of its evaluation

will therefore depend on the value it receives from T. Crucially, root modals do not bear a [sen] tense value. This reflects the fact that they have a wider distribution than their epistemic counterparts, since they may appear even in the absence of a SenP layer. Hence, the absence of the latter in (44), which illustrates a MC sentence that contains a root modal.

- (44) a.
$$\begin{array}{c} \text{Agree} \\ \swarrow \quad \searrow \\ [\text{TP } \textit{té} \dots \quad [\text{vP } \textit{dwet}_{\text{root}} \dots [\textit{prejacent}]]] \\ \textit{iT} [\textit{past}] \quad \textit{uT} [] \end{array}$$
- b.
$$\begin{array}{c} [\text{TP } \textit{té} \dots \quad [\text{vP } \textit{dwet}_{\text{root}} \dots [\textit{prejacent}]]] \\ \textit{iT} [\textit{past}] \quad \textit{uT} [\textit{past}] \end{array}$$

As outlined in (44a), an Agree relation obtains between T and the root modal. Its outcome is (44b), where the modal's tense feature is valued as [past]. The derivation is rather straightforward and does not deserve, I believe, any further discussion.

Nonetheless, one last point must be addressed before closing this section. Recall (29), repeated here as (45), where it was shown that *té*, the past tense marker, can precede an epistemic modal. Although an extensive discussion of SoT is beyond the scope of this paper, I cannot overlook the implications which (29) has for the analysis of MC modals presented above.

- (45) André té asiré ki Mari pa té pé sav sa
 Andrew PST sure COMP Mary NEG PST can know that'
 'Andrew was sure that Mary couldn't have known that.'

One may rightly wonder how it is possible that for *té* to appear in this sentence at all. Following Stowell (1996, 2007), I attribute this to what he labels temporal polarity. We may think of it as a phenomenon related to the licensing of NPI/PPI. That is, the past tense in the matrix clause licenses past tense morphological exponence in the embedded clause. However, the embedded past tense morpheme makes no semantic contribution. It should therefore not be mistaken for its indexical counterpart which appears in the matrix clause. I refer the reader to Stowell's paper for an extended exposé of these ideas.

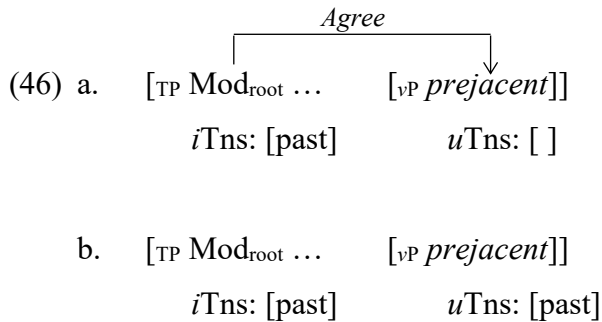
This concludes the present section. I have proposed a technical implementation of the ideas discussed in section 4.6. I have argued that the difference between epistemic and root modals lies in the fact that only the former possess a [sen] tense feature, which reflects their dependence on the SenP projection for their interpretation. This feature forces the T node to look upward towards Sen to value its interpretable but unvalued tense feature. Root modals, on the other hand, bear an uninterpretable unvalued tense feature which receives its value from the T node in their extended projection, as the latter bears an interpretable valued tense feature.

4.8 Modals and sentience across languages

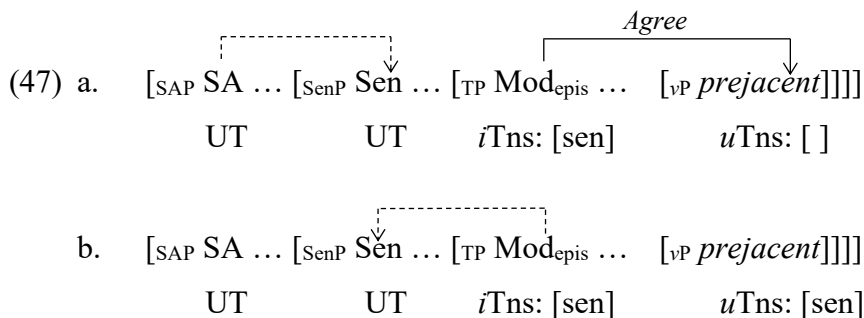
This section explores the cross-linguistic implications of the proposal that the root-epistemic distinction can be reduced to the presence/absence of a [sen] feature on the modal. As we saw in section 4.2.2, there is a wide range of variation in the syntax of modality across the languages of the world. In some languages, regardless of their flavor, all modals are merged in the same position. Even among these languages, there is variation as regards what that precise position is. In MC, but also arguably in French (Authier and Reed 2009), that position is inside the vP , which means that in these languages, modals are lexical verbs. There are also languages where modals are functional verbs merged in the same position, e.g. T in English (Roberts 1985, 1993; Zagana 2008). Then, there are finally those languages where modals are merged in different positions with respect to tense, depending on their flavor (see, i.a., Picallo 1990; Marrano 1998; Cinque 1999). Of these languages which pattern with MC in having both their root and epistemic modals merged inside vP , I have nothing else to add, as I presume that the analysis offered in section 4.7 readily applies to them.³¹ The purpose of the present section is therefore to determine whether a similar-minded account can be proposed for the other types of languages.

³¹ Of course, that analysis would have to be modified to take into account certain idiosyncrasies. In the case of Romance languages, for instance, one would have to take a closer look at issues such as perfect raising (Martin 2011; Laca 2014, 2018). Doing so here would take us too far afield. I must then leave the reader with the oversimplification that the mechanism I propose may be adapted to these languages modulo some adjustments.

Let us start with the easier case of English-like languages where modals are merged in T, regardless of flavor. As regards root modals, I assume that they are merged with an interpretable and valued tense feature. This is represented below in (46). Because of the [past] tense feature, the root modal is evaluated at some *t* prior to UT. It further enters an Agree relation with its prejacent. The latter's location in time will then be relative to the time of evaluation of the root modal.³²



As for epistemic modals, I propose that they are merged in T with an interpretable [sen] feature. This entails that the tense pronoun in T will be coindexed with its counterpart in Sen. Accordingly, in a root clause, an epistemic modal will be evaluated at UT. As for the prejacent, I hypothesize that it bears an uninterpretable unvalued tense feature. It must therefore enter an Agree relation with T, which means that its temporal location will be relative to the time of evaluation of the epistemic, i.e. UT. This mechanism is captured in the schema in (47).

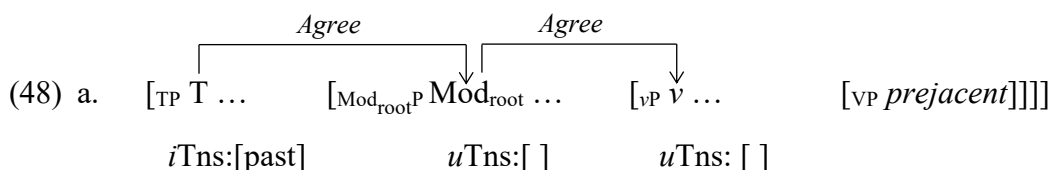


³² There may, of course, be aspectual heads between TP and the prejacent. These will allow the location of the prejacent to be distinct from the time of evaluation of the root modal. However, that location will be relative to the modal's evaluation time.

- c. $[_{SAP} SA \dots [_{SenP} Sen \dots [_{TP} Mod_{epis} \dots [_{VP} prejacent]]]]$
 UT UT *i*Tns: [sen;UT] uTns: [sen;UT]

Needless to say, if the epistemic were embedded under an attitude, its evaluation time would match the running time of the attitude. In light of the above, I am led to conclude that the [sen] feature I have proposed provides an adequate account of the epistemic/root distinction in those languages where both epistemic and root modals are merged in T.³³

Let us then move on the more complex case of these languages where modals occupy distinct positions based on their flavor. To be more precise, in these languages, epistemics are merged above TP and roots below it. I shall start my investigation with root modals. I assume the following ingredients. First, T bears an interpretable valued tense feature, while both the root modal and its prejacent bear an uninterpretable and unvalued tense feature. Accordingly, the root modal will enter an Agree relation with its prejacent. This relation cannot, however, provide it with a value. Its value will instead be provided by the Agree relation it enters with T. As a consequence, both the root modal and the prejacent will receive their tense feature value from T. Thus, in the schematic representation in (48), they are valued as [past], which means that the root modal is evaluated at some time *t* prior to UT and the temporal location of the prejacent is relative to that time *t*.



³³ One may wonder how this configuration arises in the first place. This is obviously beyond the scope of this paper. However, based on Roberts (1985, 1993), I hold that a variety of factors may be at play, but V-to-T movement is likely to be a necessary condition for this configuration to emerge. Note, however, that this only means that such a language had V-to-T movement at some point in its history, not that it necessarily still has it.

- b. [TP T ... [Mod_{root}P Mod_{root} ... [_{VP} v ... [VP *prejacent*]]]]
*i*Tns: [past] *u*Tns: [past] *u*Tns: [past]

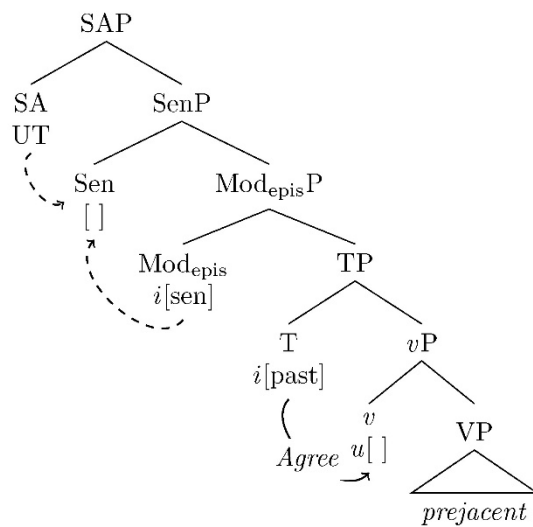
Before moving on to the case of epistemic modals, I would like to discuss briefly how these configurations may have emerged. I would like to consider two hypotheses. The first one, embodied in Cinque’s (1999) universal hierarchy, is that this may simply be one of UG’s primitives. On this view, it may simply be that UG provides a universal template with designated spots for root modals and that this happens to be in a position below TP. An obvious shortcoming of this conjecture is its lack of explanatory power. The second hypothesis builds upon the following diachronic scenario. Suppose that in the languages which manifest (48), root modals originally appeared in biclausal structures, as is the case in MC. On this view, at some point in the history of the language, a process of restructuring took place which resulted in the truncation of the prejacent. It may be that a process such as Pesetsky’s (2021) exfoliation or something akin to it (see Murphy 2019 for various proposals) obtained and removed some of the structure below the modal. A proper evaluation of this hypothesis would require that we take a closer look at the size of a root modal’s prejacent, but this would take us too far afield. A thorough exploration of these two hypotheses must, then, be left for further research.

For the time being, let us turn to the study of epistemic modals in these languages and assess whether the postulate of a [sen] feature yields the expected result. Recall that in such languages, it is posited that epistemics are merged above TP, as illustrated in (49). I postulate that the modal’s [sen] tense feature implies that it needs to look upward toward Sen to locate its temporal pronoun.³⁴ Meanwhile, T bears an interpretable valued tense feature, while the prejacent bears an uninterpretable and unvalued tense feature. There will therefore be an Agree relation between T and the prejacent. Accordingly, in a matrix clause, the epistemic modal will be evaluated at UT, while its prejacent will be evaluated with respect to the tense feature borne by T. This, I argue, is the desired outcome. But, of course, one must wonder what would happen if the epistemic were merged below TP. This is

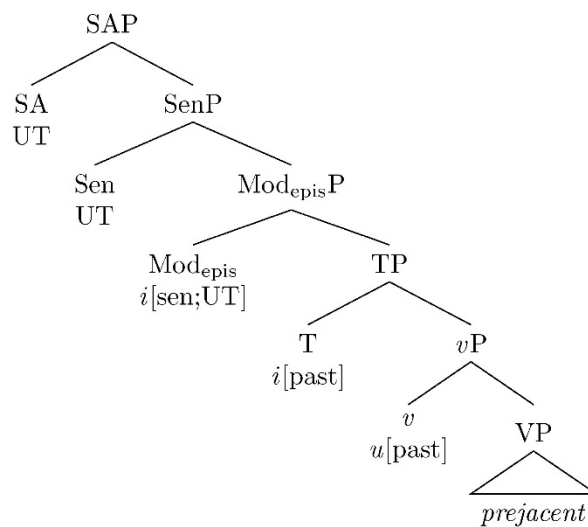
³⁴ Again, I remain agnostic as regards the nature of this operation. Furthermore, I surmise that the modal’s tense feature is interpretable, but this is admittedly rather conjectural. Note, however, that given the scenario described in the body of the text, this is a plausible assumption.

basically the question which was raised in section 4.7. If T bears an interpretable valued tense feature and the epistemic modal bears a [sen] feature, it is not clear whether Agree should obtain at all. And, even if it does, this might result in an uninterpretable logical form because of the incompatible presuppositions associated with [sen] and [past]. The only way such a configuration could be possible is if the tense feature on T was unvalued. However, let us conjecture that in such languages, T may not have an unvalued tense feature. Should this be correct, then it is straightforward that the epistemic must necessarily be merged above TP.

(49) a.



b.



As to the possible origin of such a configuration, here again, I would like to put forth two

hypotheses. The first one is, again, that UG provides a spot for epistemic modals above TP across all languages of the world. This hypothesis is subject to the same criticisms as those mentioned above. As to the second hypothesis, it may be that the configuration in (49) is the diachronic evolution of (43). Suppose that, owing to its transparency and possibly V-to-T movement, T was eventually “deleted” from the structure. This would presumably result in the reanalysis of an initially biclausal structure into a monoclausal one. Again, these conjectures require further evaluation which must be left for future work.

This concludes my survey of the cross-linguistic implications of the analysis developed in section 4.7. The postulate that the difference between epistemic and root modals reduces to the fact that only the former bear a [sen] tense feature has been shown to be compatible with the cross-linguistic data. This strengthens the plausibility of the proposed analysis.

4.9 Conclusion

From an empirical perspective, this paper has provided an analysis of MC modals which shows them to be lexical verbs, regardless of their flavor. It has also shown that even though they share a common merge site, MC modals differ in their temporal interpretation. This study lends support to the generalization captured in (1). Yet, a strictly positional analysis is not possible.

Accordingly, I have proposed that what distinguishes epistemic from root modals is their orientation. Because epistemics are oriented toward a sentient mind, they must entertain a privileged relation with the SenP layer in the higher portion of the left periphery. I have argued that this is enforced through a [sen] feature found on epistemic modals, but not on their root counterparts. This feature is not exclusive to their temporal interpretation as I assume that it also plays a role in setting their judge and world parameters.

It should be noted that the [sen] feature is probably involved in the interpretation of other sentience-sensitive items, such as evaluatives, expressives and evidentials. A thorough investigation of these items should then be envisaged. Furthermore, given the diachronic scenarios sketched out in section 4.8, it is equally important to consider how the various syntactic configurations which underlie modal sentences can be related to the role

of sentience. These topics must be left for further research.

Appendix A: MC modals are raising verbs

In this section, using diagnostic tests found in Wurmbrand (2000), I shall demonstrate that in MC, both root and epistemic modals are raising predicates.

Root modals

As shown in (50), MC root modals tolerate expletive subjects, which argues for their analysis as raising predicates.

- (50) I dwet ni wonz jwè adan an létjip foutbol
 3SG must have eleven player in a team soccer
 ‘There must be eleven players on a soccer team.’

Additionally, idiomatic expressions are preserved when embedded under a root modal. This is illustrated in (51), where we find the idiomatic expression *chak kochon ni sanmdi yo* ‘there is no flying from fate’ (lit. ‘every pig has its Saturday’).

- (51) Chak kochon dwet ni sanmdi yo
 each pig must have Saturday 3PL
 ‘There must be no flying from fate.’

This fact also favors the hypothesis that MC root modals are raising predicates.

Finally, when the subject of a root modal is an indefinite DP, it can be interpreted either as *de re* or *de dicto*. The *de re* reading obtains when the indefinite is interpreted outside the scope of the modal, while the *de dicto* reading obtains when the indefinite subject is reconstructed inside the prejacent. This is exemplified in (52).

- (52) An moun Martinik dwet genyen loto a
 a person Martinique must win lottery DEF
 ‘Someone from Martinique must win the lottery.’
- i. There is a $x \in \{\text{people from Martinique}\}$ s.t. it is necessary for x to win the lottery. (*de re* reading)
 - ii. It is necessary that there is a $x \in \{\text{people from Martinique}\}$ s.t. x wins the lottery. (*de dicto* reading)

The fact that the subject of a root modal can be interpreted in two positions drives home the point that MC root modals are raising predicates. Let us now see whether the same can be said of their epistemic counterparts.

Epistemic modals

Applying the same battery of tests, I shall now demonstrate that MC epistemic modals are raising predicates.

First off, just as root modals, epistemics are compatible with expletive subjects. This is evidenced in (53).

- (53) I dwet ni bon moun
 3SG must have good people
 ‘There must be a lot of people.’

Next, consider the fact that idiomatic expressions are not affected when embedded under an epistemic modal. This is illustrated in (54), where we have the idiomatic expression *dlo dépasé farin* ‘that was the last straw’ (lit. ‘water exceeded flour’).

- (54) Dlo dwet dépasé farin
 water must exceed flour
 ‘That must have been the last straw.’

Finally, in MC the indefinite subject of an epistemic modal is ambiguous between a *de re*

and a *de dicto* reading, which provides strong evidence for the analysis of MC epistemic modals as raising predicates.

- (55) An moun Martinik dwet genyen loto a
a person Martinique must win lottery DEF
'Someone from Martinique must have won the lottery.'
i. There is a $x \in \{\text{people from Martinique}\}$ s.t. it is necessarily the case that x won the lottery.
ii. It is necessarily the case that there is a $x \in \{\text{people from Martinique}\}$ s.t. x won the lottery.

In light of the above, it is safe to conclude that MC modals are raising verbs.

Summary

In this section, I have established that MC modals, both epistemic and root, are raising verbs. The evidence for this comes from their compatibility with expletive subjects, their ability to preserve idiomatic readings, and their scope relation with indefinite subjects. Accordingly, I hold that MC modals are merged in biclausal structures, as schematized in (56).

- (56) [TP DP_{subj} ... [VP Mod_{epist/root} ... [TP t_{subj} ... [VP Prejacent]]]]

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Chapitre 5. Conclusion

L'objectif de cette thèse était double. Premièrement, il s'agissait de contribuer à une meilleure documentation de la syntaxe du CM. Deuxièmement, il était question de situer l'étude de cette langue dans une perspective théorique plus large portant sur l'interface entre la syntaxe et la pragmatique.

Au chapitre 2, nous nous sommes penché sur l'étude du DP en CM, lui révélant des propriétés jusqu'alors ignorées de la littérature. Nous affirmons notamment que le déterminant défini ne marque pas nécessairement la spécificité. Il peut en réalité marquer la définitude prise au sens d'unicité. Nous nous écartons ainsi des analyses précédentes, motivant notre proposition par l'étude combinée des DP simples et des DP relativisés. Ces derniers révèlent que la périphérie gauche nominale du CM est plus riche que l'on ne le pensait jusqu'alors. Nous suggérons de scinder la projection DP en deux projections fonctionnelles. La première que nous désignons sous le nom de DefP marque la définitude, tandis que la seconde, désignée sous le nom de SpecifP, marque la spécificité. On peut ainsi rendre compte des différentes interprétations des DPs simples du CM, ainsi que les effets interprétatifs liés à l'absence ou la présence de la seconde occurrence du déterminant dans les DP relativisés. Cette dernière observation a d'ailleurs des implications théoriques qu'il conviendra d'investiguer au-delà de la présente thèse. En effet, tout porte à penser que la périphérie gauche des DP relativisés est aussi riche que celle de leurs homologues simples.¹ Cette hypothèse mérite d'être vérifiée dans d'autres langues.

Au chapitre 2, nous nous sommes intéressé à une construction que nous avons désignés sous le nom d'interrogatives partielles définies (IPD) en raison de la présence d'un déterminant clausal en position finale. Ces interrogatives non canoniques n'avaient pas encore été analysées. L'étude exploratoire que nous en offrons révèle des propriétés pragmatiques particulièrement intéressantes. Celles-ci sont attribuables au déterminant clausal, dont la restriction est une proposition sémantique. Celle-ci doit trouver un

¹ La plupart des travaux sur les relatives restrictives leur associent une périphérie gauche nominale relativement pauvre.

antécédent propositionnel dans le *common ground* pour légitimer l'emploi de l'IPD. Cette caractéristique confirme le fait que la définitude n'est pas limitée à un seul domaine. En outre, le fait que ce déterminant partage la même réalisation phonologique que son homologue nominal interroge l'interface syntaxe-morphologie. On peut en effet faire l'hypothèse qu'il s'agit de l'externalisation d'un trait [+DEF] « acatégoriel », ce qui conforterait une approche basée sur l'insertion tardive des traits phonologiques, tout en interrogeant la question de la multifonctionnalité. Dans l'éventualité de travaux ultérieurs consacrés aux IPD, on gardera ces deux problématiques à l'esprit.

Enfin, le chapitre 4 nous a donné l'opportunité d'étudier les interactions des modaux du CM avec le temps. Il en ressort que les modaux du CM sont des verbes à montée. Qu'ils soient épistémiques ou radicaux, ils sont engendrés dans un VP. Ils participent à des phrases biclausales et sont sous la portée d'un nœud T. En dépit de cela, nous avons mis en évidence que les modaux du CM se comportent comme ceux des autres langues. Autrement dit, on observe des restrictions quant à l'interprétation temporelle des épistémiques que l'on ne retrouve pas dans celle de leurs homologues radicaux. Pour rendre compte de ces données, nous avons postulé que les épistémiques se distinguaient des radicaux par un trait [sen] qui traduit leur dépendance interprétative à la couche fonctionnelle abstraite SenP. Nous avons donc affaire à un phénomène syntaxique dont nous avons argumenté l'existence potentielle dans les autres langues du monde. Il nous reste cependant à vérifier la justesse empirique de notre proposition. De plus, à l'occasion de cette étude, nous avons suggéré que lorsqu'ils sont placés dans une proposition principale, les modaux épistémiques sont nécessairement évalués au moment de l'énonciation. Nous avançons donc que les seules phrases qui semblent échapper à cette généralisation contiennent des propositions principales abstraites ou élidées. Cette analyse mérite d'être investiguée au-delà du CM et des modaux, puisqu'on sait que ces derniers ne sont pas les seuls à dépendre de la couche SenP pour leur évaluation.

Les prolongations possibles de cette thèse sont donc nombreuses et nous invitent à poursuivre ailleurs l'investigation de l'interface syntaxe-sémantique/pragmatique du CM.

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