SUMMARY

In this thesis, the occurrence of direct speech (e.g., *Mary said: “Let’s go”*) in language produced by individuals with aphasia and its effects on listener perception are explored. The thesis also investigates the effects of direct and indirect speech (e.g., *Mary said that she wanted to go*) on discourse comprehension in individuals with aphasia. The principal finding is that direct speech has a positive effect on both language production and language comprehension in Dutch individuals with aphasia.

In the General Introduction, Chapter 1, possible causes of aphasia are discussed, followed by a description of how aphasia affects language production and comprehension. Next, possible ways that individuals with aphasia may compensate for these difficulties are considered. This is followed by a description of the main findings from the literature on direct and indirect speech processing and, more specifically, the use of direct speech in aphasia. Although much attention had been paid to reported speech in “healthy” interaction, the review of the literature makes it clear that little is known about the role of reported speech in aphasic discourse. In addition, there are a number of methodological limitations in the previous research, such as a reliance on English-language studies, small participant groups, the absence of a control group, and a major focus on written language. Hence, even though previous research on the production of direct speech in aphasia provides a clear base to build on, it is concluded that further research is
needed because of these methodological limitations. The chapter ends with the formulation of the research questions that are addressed in this thesis.

In the study presented in Chapter 2, the occurrence of direct speech constructions in narratives of Dutch individuals with and without aphasia is examined. The question posed in this chapter is whether and how often the construction is used, and in which forms it becomes manifest. To answer this question, the relative frequencies of direct speech constructions are calculated and compared within and between groups and tasks. Based on the patterns found in the data, different forms of direct speech are categorised: speech quotations, thought quotations, bare quotations and question-answer sequences. The results show that both groups make use of various forms of direct speech, but the individuals with aphasia produce more direct speech constructions than the non-brain-damaged (NBD) speakers. In addition, their direct speech instances have a different distribution across categories. The larger proportion of direct speech by individuals with aphasia is suggested to be a strategy to avoid difficulties with word-finding and grammar.

In Chapter 3 the effects of the occurrence of direct speech on the perceived liveliness and speech comprehensibility of spontaneous speech produced by speakers with and without aphasia are assessed. Previous studies have shown that direct speech is frequently accompanied by, for example, shifts in prosody, voice quality, and pitch. As modification of intonation has been suggested to affect the degree of perceived liveliness of speech, the occurrence of direct speech is expected to have a positive effect on perceived liveliness. Furthermore, since increased liveliness has been argued to help a listener to stay focused and understand the content of a message, the occurrence of direct speech is expected to positively affect speech comprehensibility.
The study demonstrates, as expected, that communication is perceived as more lively in both populations when it contains direct speech than when it does not. However, it is not more comprehensible. We suggest that the relatively high frequency of use of direct speech by speakers with aphasia reflects a strategy to increase not only liveliness of their discourse, but also listener focus and involvement.

Chapter 4 addresses the question of whether the use of direct speech, compared to indirect speech, affects comprehension of narrative discourse in Dutch listeners with and without aphasia. The Direct Speech Comprehension (DISCO) test is developed to examine the effects of manipulation of direct versus indirect speech on discourse comprehension. As predicted, narratives with direct speech are better understood than narratives with indirect speech by listeners with and without aphasia. Two possible explanations are proposed: 1) the positive effect of direct speech is caused by the additional “layers” of communication (e.g., changes in pitch, volume and speech rate, facial expression, pauses) accompanying direct but not indirect speech; 2) in Dutch, direct speech is easier to comprehend than indirect speech, since the grammatical structure of direct speech is less complex than that of indirect speech. That is, direct speech constructions do not have grammatical embedding and are in canonical word order. Indirect speech constructions are embedded sentences with an (obligatory) complementiser (‘that’) and the word order of the embedded sentence is non-canonical.

Chapter 5 presents a study investigating which of the two explanations for the Dutch results is correct by replicating the study in English. In English, like in Dutch, indirect speech constructions are embedded. However, English indirect speech constructions have the same (canonical) word order as direct speech constructions, and the complementiser is optional and usually omitted. Hence, an English
version of the DISCO test is developed and presented to participants with and without aphasia. The effects of language (Dutch versus English), group (speakers with aphasia versus speakers without aphasia) and condition (direct versus indirect speech) are examined. All three variables affect DISCO scores: the Dutch participants perform better than the English-speaking participants, the non-aphasic control group outperforms the aphasic group, and the direct speech condition is easier than the indirect speech condition. However, for English-speaking participants with aphasia, direct speech is not easier to understand than indirect speech. Given these differential effects for the Dutch and English aphasic individuals, it is argued that both the extra “layers” of communication (changes in intonation, facial expression, pauses, etc.) and the grammatical characteristics of direct and indirect speech constructions play a role in discourse comprehension success, but that the surface syntactic ambiguity of English reported speech constructions influences performance.

In Chapter 6, the issues raised in Chapter 1 and explored in Chapters 2 to 5 are discussed, and the results interpreted in relation to previous literature. Individuals with aphasia produce more direct speech constructions than speakers without aphasia, and this relative increase is suggested to reflect a strategy to mask word finding difficulty and to avoid grammatically complex constructions. It is argued that this is the first research to show that communication is perceived as more lively when it contains direct speech than when it does not. Furthermore, the positive effects of direct speech constructions on discourse comprehension in individuals with aphasia are considered. Finally, some clinical implications of the research are discussed: As direct speech is a linguistic format used by speakers without aphasia, it can provide a natural strategy to compensate for word-finding problems and grammatical difficulties. Direct speech can be a way that individuals with aphasia can complement or even replace verbal
communication by relying on paralinguistic and non-linguistic devices, such as intonation, gestures, and body movements (aspects that are usually intact in individuals with aphasia). In this way, direct speech can contribute to the perceived liveliness of speech, helping individuals with aphasia to be stronger communication partners. Direct speech provides them with a natural, economical and flexible linguistic format that can be used in versatile communicative contexts. Therefore, speech-language pathologists should consider practicing the use of direct speech in everyday communication with aphasic speakers. Similarly, there may be benefits from communication partners of individuals with aphasia using direct rather than indirect speech constructions to report speech, since the reduced grammatical complexity and extra non-verbal and paralinguistic cues may help individuals with aphasia better understand a message.