

# Integration of the Language of Makassar into Indonesian as an Inter-ethnic Communication Media in Makassar City

Culture Science Faculty, Hasanuddin University, Makassar, Indonesia asriani.abbas@unhas.ac.id

**Abstract.** This article discusses the diversity of ethnic languages such as Chinese, Bugis, Javanese, Sundanese, Banjarmasin and others that interact with the Makassar language as an indigenous language in Makassar City. This inter-ethnic language interaction requires a neutral communication medium as the inter-ethnic liaison language, namely Indonesian. The study of integration between the Makassar language and Indonesian is considered important to increase the capacity of the Makassar dialect of Indonesian which is very productive and systemically used by its speakers. This article can also guide speakers of other ethnic languages to be able to use Indonesian Makassar dialect appropriately so that misunderstandings in inter-ethnic communication can be minimized due to the presence of linguistic facts as local characteristics that need to be understood by speakers of other ethnic languages in Makassar City. Data collection is done by elicitation, recording, and random sampling techniques by inviting speakers to communicate according to the type of data required. The data were analyzed descriptively to provide information to readers about the linguistic facts of the Makassar language integrated into Indonesian. The contact of the Makassar language with Indonesian resulted in the Makassar dialect of Indonesian. Indonesian Makassar dialect provides its own characteristics which contain politeness values with a higher degree of politeness compared to politeness in Indonesian. Politeness, respect, and respect for intra-ethnic and inter-ethnic are manifested in the presence of certain linguistic facts. The linguistic fact that marks the integration of Makassarese dialects into Indonesian is the participation of personal pronouns, both in free and bound forms, known as clitics. In addition, there are also some particles that characterize the character of the Makassar-Indonesian language as a strengthening of inter-ethnic communication in various aspects of life in a communal society.

**Keywords:** Indonesian Language  $\cdot$  Interethnic  $\cdot$  Integration  $\cdot$  Makassar Language

# 1 Introduction

This article discusses the diversity of ethnic languages such as Chinese, Bugis, Javanese, Sundanese, Banjarmasin, and others that interact with the Makassar language as an indigenous language in Makassar City. This inter-ethnic language interaction requires a

© The Author(s) 2023 M. Hasyim (Ed.): ICLC 2022, ASSEHR 756, pp. 30–40, 2023. https://doi.org/10.2991/978-2-38476-070-1\_4 neutral communication medium as the inter-ethnic liaison language, namely Indonesian. The most ideal communication medium chosen to establish an atmosphere of interethnic togetherness in an effort to build an integral strength is Indonesian. It is possible because the Indonesian language has been proven to be able to unite ethnic groups from diverse cultural and linguistic backgrounds. In addition, the Indonesian language has had juridical power since it was confirmed as the national language which was echoed in the Youth Pledge on October 28, 1928.

Indonesian which is in contact with the Makassar language results in the Indonesian of Makassar dialect. The existence of the Makassar language also contributes to play the role of Indonesian as a medium for conveying information in social life. The linguistic fact that marks the integration of Makassarese dialects into Indonesian is the participation of personal pronouns, both in free and bound forms, known as clitics. Other linguistic facts are no exception. For example, in formal Indonesian speech: Sava makan (I eat). If spoken by ethnic Makassarese speakers, the shape and structure will change to: Makangak 'My meal'. The speech is a form of integration of Makassar language into Indonesian which provides information to the speech partner that the speaker is eating activities. The utterance of Makangak 'My meal' is marked by the presence of enklitika -ak 'I' as a personal pronoun 1 in Makassar language which is integrated into the word 'eat' in Indonesian. The presence of the -ak enklitika is a shortened form of the free personal pronoun inakke 'I'. In Makassar language enklitika -ak 'I' can be placed behind a verb or behind another word class. If speakers of different ethnicities do not know the Makassar dialect, they will be confused and find it difficult to adapt to the local population.

Another phenomenon is that in the Makassar language there are differences in greetings to speakers of the same age as speakers of different ages. The linguistic fact can be seen in the use of the second personal pronoun *kita* 'we' in speech as in *Di mana kita dengar berita itu*? (Where did **we** hear the news?) If spoken in formal Indonesian it would read: *Di mana anda mendengar berita itu*? (Where did **you** hear the news?) The use of our personal pronouns can lead to misunderstandings if the speakers come from different ethnicities. For the speech partner, the word *kita* 'we' carry the meaning as a plural inclusive first person pronoun (includes the speaker and the speech partner). On the other hand, what *kita* 'we' mean by the questioner (speaker) of the Makassar ethnic group is a greeting that has honorific values, namely polite/polite which means 'you, Mr/Mother, Brother, Uncle/Auntie' (greeting to person II who is older or respected).

The speech in the two examples that have been described for people who are not native speakers of the Makassar language will find it difficult to use the Indonesian of Makassar dialect correctly. The interesting thing is that speakers from outside the Makassar ethnic group who visit or live in Makassar's places always try to adapt to the Makassar dialect. However, speakers often confuse or often misplace the enclitics so that they sound strange and funny. In fact, other ethnic groups who have lived in Makassar for decades still find it difficult to place the right enclitics when they speak the Indonesian of Makassar dialect.

Based on the facts of the language that the researcher has been explained, the study of integration between Makassar language and Indonesian is considered important to be researched and narrated in order to increase the repertoire of Indonesian of Makassar dialect which is very productive and systemic used by speakers. Likewise, this article is expected to guide speakers of different ethnicities in order to use Makassar dialect Indonesian appropriately so as to minimize misunderstandings due to the presence of linguistic facts as local characteristics that need to be understood by speakers of different ethnicities.

# 2 Methodology

The data used is sourced from oral data in the form of Indonesian speech in the Makassar dialect. Data collection was carried out using the field method to obtain the necessary information in order to achieve the research objectives. Data was collected using elicitation, recording, and unlimited random sampling techniques. Elicitation technique is done by fishing or inviting speakers to communicate according to the type of data required. In this case, the data needed is in the form of sentences which contain the word formation in the form of integration of the Makassar language into Indonesian. Data obtained through elicitation techniques can increase confidence that the data is true and valid.

The recording technique is carried out to obtain as much data as possible when Makassar speakers speak Indonesian in various situations. The recorded speakers know no age limit. Those speakers are at least bilingual, that is, masters the Makassar language and Indonesian. The data collection technique used is unlimited random sampling, which is a comprehensive sampling. All belonging to the Indonesian of Makassar dialect were identified without specifying the number and type. In other words, data is collected randomly regardless of the type and amount of data obtained in the field. The data were analyzed descriptively to provide information to readers about the linguistic facts of the Makassar language integrated into Indonesian. A clear description of the data will provide comprehensive linguistic information to speakers of different ethnicities who visit and live in Makassar City.

# 2.1 Integration of Makassar Language into Indonesian

Events of language contact in bilingual society can be the object of sociolinguistic study. In sociolinguistics, it is explained about the use of language that varies due to the contact that occurs by a number of languages used by the community of speakers. Spolsky [1] said that sociolinguistics is the field that studies the relation between language and society, between the uses of language and the social structures in which the users of language live. It is a field of study that assumes that human society is made up of many related patterns and behaviours, some of which are linguistics. Sociolinguistics is concerned with investigating the relationships between language and society with the goal of being a better understanding of the structure of language and of how languages function in communication. The equivalent goal in the sociology of language is trying to discover how social structure can be better understood through the study of language. Based on this opinion, it can be concluded that sociolinguistics is related to the linkage of language with the people who use it.

Fishman [2] explains that language contact will occur if a speaker masters two or more languages, namely the first language (L1) and the second language (L2). In line with

the expert's view, it can be said that the Makassar dialect of Indonesian used by the people who live in Makassar City is the result of the contact between two languages, namely Indonesian and Makassarese. Thus, the people who live in Makassar City generally include bilingualism. Hamers and Blanc [3] states that bilingual is defined as having or using two languages especially as spoken with the fluency characteristic of a native speaker.

Chaer [4] mentions the term multilingualism, namely people who are able to use more than two languages in their interactions with other people in turn. Bilingualism and multilingualism trigger code mixing and interference. Rahardi [5] also explains that code mixing is a language condition that mixes two or more languages or varieties of languages in an act of language without anything that requires mixing the languages. Furthermore, according to Richard [6], code mixing is a mixing of two codes or languages, usually without a change of topic. The word code mixing is the combination of one language and another, it contains about a language that is used by the speaker than combined with another.

In line with the views of Chaer, Rahardi, and Richard, it can be categorized that the speech community from Bugis, Mandar, Toraja, Buton, Javanese, and others ethnicities as well as Chinese citizens who visit or live in Makassar City use Indonesian as a medium of inter-ethnic communication. In this case, the local language owned by the speech community of each ethnicity is mediated by the Indonesian language. Furthermore, the two languages are integrated with the local language, namely the Makassar language which creates contact between the three languages. The contact between the local language brought by each speaker with Indonesian on the one hand and Makassar language on the other has an impact on language integration.

Language integration is a linguistic phenomenon experienced by two or more languages involved in contact. Zuhdi [7] explains that language integration is an element of interference that occurs repeatedly in the speech of a person or group of people so that the longer the element is increasingly accepted as part of their language system. This definition is an initial introduction to explain the existence of speakers in Makassar City who are seen as a bilingual society, namely being able to use Makassar language and Indonesian or multilingualism, namely the local language brought by their respective speakers as mother tongue or first language (L1) and Indonesian as a second language (L2). Furthermore, the speakers interact by using the Makassar dialect of Indonesian. In fact, some of them include multilingualism, which is in addition to using two languages that have different characteristics, they are also able to use foreign languages, especially English as a third language (L3).

In its development, the Indonesian language has been successfully repositioned by its speakers into a flexible language, which opens to local languages as a medium for ethnic adhesives. Such a convention is a self-approach strategy to become an integral part of the Makassar City community. The phenomenon that occurs is that visitors, both from outside ethnicity and from abroad, always try to use the Makassar dialect as a form of actualization of cultural fabrics and the similarity of fate in the destination area. It must be acknowledged that the involvement of the Makassar dialect in Indonesian speech in certain situations is very necessary as a form of appreciation for the speech partner. In certain situations, the presence of personal pronouns makes Indonesian seem

more polite than without the participation of personal pronouns. It is accumulated in the utterance of *Makanki Pak* 'Please, please eat Sir'. The presence of the personal pronoun -ki after the word *makan* 'eat' adds a level of politeness that makes the speech partner feel very appreciated. Thus, there will be a sense of togetherness, intimacy, common destiny, mutual respect and respect which are believed to be high cultural values.

# 2.2 Morphological Integration

The morphological integration between Indonesian and Makassar languages has its own characteristics. There are several words and clitics in Indonesian of Makassar dialect that need to be known by anyone who lives and wants to come to Makassar. It aims to avoid misunderstanding, confusion and lost in translation.

One aspect of word formation is clitics. The term clitice according to Verhaar [8] comes from the Greek klinein 'to lean', namely short unaccented words. All short forms that rely on the basic form can be categorized as clitics. In sentence construction, first formed verbs undergo pronoun arrangement, either through free pronouns or bound pronouns (clitics). Abbas [9] also gave an explanation about the arrangement of pronouns (clitics) in Makassar language which consists of proclitics and enclitics. A clitic attached to a verb (preverb) is called a proclitic, while a clitica attached to a verb (posverb) is called an enclitic.

In the Makassar ethnic environment, the use of Indonesian language which involves the Makassar dialect has certain purposes. Kaharuddin, et al. [10] said that the morphological integration of Makassar language in Indonesian is manifested in the presence of persona markers containing politeness values with a higher degree of politeness than politeness in Indonesian. It is supported by the Makassar culture which upholds the mottos of *sipakatau* or 'mutual respect', *siri*' 'self-respect/shame' and *pacce* 'to share in other people's distress'. Those characters are realized in polite behavior, high solidarity, responsibility, and firm stance.

# 3 Result and Discusson

The researchers divide the results of the research discussion into three parts, namely Makassar sociological descriptions, free personal pronouns, and bound personal pronouns.

#### 3.1 Sociological Description Makassar

The island of Sulawesi in the south and west is inhabited by four major ethnic groups, namely Makassar, Bugis, Mandar, and Toraja. For the Makassar ethnic group, according to Abbas [11], they generally inhabit 7 regencies and 1 city, namely Pangkep Regency (northern border area with Bugis ethnicity), Maros Regency, Makassar City, Gowa Regency, Takalar Regency, Jeneponto Regency, Bantaeng Regency, and Bulukumba Regency (area of southern boundary with the Bugis). Makassar City as a coastal area has a strategic role because it is the capital of South Sulawesi Province as well as the fifth largest city in Indonesia after the Special Capital Region of Jakarta, Surabaya

City, Semarang City, and Medan City. According to statistical data, the population of Makassar City is around 1,571,814 people until October 2022 with very diverse ethnic heterogeneities [12] (Fig. 1).

Makassar City according to historical records presented by Mattulada [13] was the capital of the Gowa-Tallo Kingdom from 1510 to 1669 as the largest kingdom in the eastern region of the archipelago. Then it became the city of colonial rule in the eastern region of the archipelago by the VOC, the Netherlands, British, and Japan from 1669 to 1942. Then it became the State Capital of East Indonesia Country until 1950. From 1950 to 1960 it became the Capital of the Province of Sulawesi. Furthermore, from 1960 until now it has become the capital city of South Sulawesi Province within the territory of the Unitary State of the Republic of Indonesia (Fig. 2).

The original inhabitants of Makassar City are Makassar people who have an ethnic language, namely the Makassar language. Currently the Makassar language must be transformed with Indonesian as a national language which is often termed as Indonesian



Fig. 1. Map of Makassar City which consists of 14 sub-districts with a total population of 1,571,814 people. (Source: https://www.google.com/search?q=peta+kota + makassar. Accessed on September 6, 2022)



Fig. 2. The interaction of Makassar people with ethnic Chinese requires language transformation in building harmonious communication. (Source: personal photo collection by Abbas. Documented on Agustus 14, 2010)



**Picture 3.** Communication of Makassar people with other ethnicities sometimes uses Indonesian Makassar dialect as a medium for conveying information in social life. (Source: personal photo collection by Asriani Abbas. Documented on Oktober 2, 2018)

Makassar dialect. The Makassar accent is a form of language that is included in the Malay trade group (Market Malay). In an informal situation, the integration of Makassarese dialects that characterize the use of Indonesian is more comfortable and acceptable for Indonesian language users, both from the same ethnic group or from a different ethnic group. However, for speakers of different ethnicities it still sounds inappropriate to place free pronouns and clitics when they speak. Figure 3 is a description of various Makassar linguistic facts that participate in the formation of Indonesian words and sentences.

There are several linguistic facts identified in the use of free personal pronouns and bound personal pronouns. There are bound personal pronouns in the form of proclitics and some in the form of enclitics, which will be described in the following usage.

# 3.2 Free Persona Pronouns

The word *kita* 'we' for ethnic Makassar is a polite/honorific greeting to the pronoun persona II, which contains the meanings of Indonesian *anda* 'you' (a person newly known) and 'father/mother' (older person). The word *kita* 'we' is interpreted as a plural persona pronoun, which means 'I and you'. Speakers outside the Makassarese ethnicity should understand the word *kita* which means 'you' references in order to avoid misunderstanding, confusion, and lost in translation as already mentioned.

Example:

- (1) Di mana *kita* tinggal? 'Di mana Anda, Bapak/Ibu tinggal?'
- (2) *Kita* sudah baca surat itu? 'Anda, Bapak/Ibu sudah membaca surat itu?'

The word *kita* means 'you' referred to in the two utterances refers to the speech partner who is greeted politely/honorifically.

### 3.3 Bound Persona Pronoun

Bound persona pronouns in Makassar language are known as clitics. There are two types of clitics, namely proclitics and enclitics. Pronouns in the form of proclitics are: ku-, nu-, ki-, na-, while pronouns in the form of enclitics are: -ak, -ko, -ki, -ku, -nu, -ta, -na.

#### 3.3.1 Persona Pronoun I

Proclitics ku- and enklitika -ak and -ku are three personal pronouns which are used to refer to the speaker's self. The three cliticts are derived from the free pronoun nakke in Makassar language which means 'I'. However, the usage is different in speech. The difference between the three clitics can be seen in the following example.

## a) Proclitics ku-

Proclitic ku- is usually used in the form of 'statement'.

Example:

- (1) Kumakangi tadi mangganu. 'Saya makan tadi manggamu.'
- (2) Sudah *ku*balas suratnu kemarin.'Sudah saya balas suratmu kemarin.'

#### b) Enclitics -ak

Enclitics -ak usually used to answer questions.

Example:

- (3) Makangak mangga. 'Saya makan mangga.'
- (4) Terimakak surat kemarin. 'Saya menerima surat kemarin.'

Sentence (3) is the answer to the question 'Apa yang kamu makan?' and sentence (4) is the answer to the question 'Apa yang kamu terima kemarin?

c) Enclitics -ku

*Enclitics* **–ku** expresses possession (possessive) which refers to the speaker. Example:

- (5) Tolong ambilkan bukuku. 'Tolong ambilkan buku saya.'
- (6) Di mana kau simpan bukuku? Di mana kamu simpan bukuku?'

## 3.3.2 Persona Pronoun II

Proclitics *ki-, nu-* and enclitics *-ki, -ko, -ta* and *-nu* are personal pronouns II in Makassar language which are used to refer to the speech partners. The six clitics are derived from the free pronoun *katte* which means 'you, father/mother and which means 'you'. However, the usage is different in speech. The difference between the six clitics can be seen in the following example.

#### a) Proclitics ki-

Proclitic ki- has a polite/honorific connotation or contains a polite meaning. The proclitic ki- is often used as a greeting to the speech partner who is newly known or older than the speaker.

Example:

- (7) Kiambili dulu kirimanta! 'Tolong ambil kiriman untuk anda!'
- (8) Kiceritai dulu pengalamanta! 'Silakan cerita pengalaman anda!'

#### b) Proclitics nu-

The proclitic *nu*- is usually used as a greeting to close friends, peers or younger age than the speaker.

Example:

- (9) Sudah *nu*terima hadiahnu? 'Sudah kamu terima hadiahmu?'
- (10) Sudah *nu*baca emailku? 'Sudah kamu baca emailku?'
- c) Enclitics -ki

Enclitics -ki has a polite/honorific connotation. It's the same with proclitic -ki. It usually used to greet speech partners who are newly known or older than the speaker. However, there is a fundamental difference between proclitics ki- and enclitic ki-, namely proclitic ki- can only be integrated or attached in front of verbs, while enclitic ki- is more free to integrate with word classes other than verbs, namely: adjectives, numerals, and interrogatives.

Example:

- (11) Tadi ada mahasiswata yang cari*ki*. 'Tadi ada mahasiswa yang mencari anda.' Example (11) shows the word class of verb followed by enclitic -*ki*.
- (12) Duaki datang ke sana. 'Kita berdua datang ke sana.'

Example (12) shows the word class of numerial followed by enclitic -ki.

(13) Dengan siapaki datang? 'Dengan siapa Anda datang?'

Example (13) shows the word class of introgative followed by enclitic -ki.

d) Enclitics -ko

Enclitics –*ko* is usually used to greet speech partners who include close friends, peers or younger age than the speaker.

Example:

- (14) Dengan siapako datang?'Kamu dengan siapa datang?'
- (15) Tadi ada mahasiswa yang cariko. 'Tadi ada mahasiswa yang mencarimu.'
- e) Enclitics -ta

Enclitic –*ta* estates ownership (possessive) which has a polite/honorific connotation. The use of the *-ta* form in the Makassar language is intended to make the greeting addressed to the speech partner more polite.

Example:

- (16) Simpan saja buku*ta* di sini. 'Simpan saja buku Anda, Bapak/Ibu di sini.'
- (17) Berapa harga baju jualan*ta*?' 'Berapa harga baju jualan Anda, Bapak/Ibu?'
- f) Enclitics -nu

Enclitic -nu express possession (possessive) which means familiar which is usually used for speech partners who include close friends, peers or younger age than the speaker.

Example:

- (18) Ambil dulu kiriman**nu!** 'Tolong ambil kirimanmu!'
- (19) Cerita dulu pengalaman**nu!** 'Silakan cerita pengalamanmu!'

#### 3.3.3 Persona Pronoun III

Proclitic *na*- and enclitic *-na* are third personal pronouns which are used to refer to the person being spoken of.

a) Proclitics na-

When ethnic Makassarese talk about other people to their interlocutors, proclitic *na*- is usually used to refer to 'he/she' as the person being spoken of.

Example:

- (20) Namakangi kuena. 'Dia makan kuenya'
- (21) Nasimpangi belanjaanna. 'Dia menyimpan belanjaannya.'
- b) Enklitika -na

Enclitics –*na* express possessiveness which refers to the person being spoken of. Example:

- (22) Sudah kubaca suratna. 'Sudah saya baca suratnya,'
- (23) Kurang jelas tulisanna. 'Kurang jelas tulisannya.'
- c) Enclitics in the form of particles

In addition to the bound personal pronouns, there are also enclitics in the form of particles such as: -mi, -ji, -pi. -mo. These particles are difficult, even cannot be translated into Indonesian if they stand alone. The existence of the typical Makassar particle often makes speakers outside the Makassar ethnic group feel confused, both to understand and to pronounce it.

The integration of the Makassar language into Indonesian also contributes to play the role of Indonesian as a medium for conveying information in social life. In certain personal pronouns, the integration between the two languages gives rise to the value of politeness. The presence of these linguistic facts is also realized in the behavior of the speaking community in terms of being polite, having high solidarity, establishing togetherness and mutual respect, both with the same ethnicity and with different ethnicities.

# 4 Conclusion

The contact of the Makassar language with Indonesian resulted in the Indonesian of Makassar dialect. The dialect provides its own characteristics which contain politeness values with a higher degree of politeness compared to politeness in Indonesian. Politeness and respect for fellow in ethnic and different ethnic groups are manifested in the presence of certain linguistic facts. The linguistic fact that marks the integration of Makassarese dialects into Indonesian is the participation of personal pronouns, both in free and bound forms, known as clitics. In addition, there are also some particles that characterize the character of the Makassar language. Thus, the proper use of the Makassar dialect of Indonesian can be a means of communication that provides the value of togetherness and equality for mutual respect and appreciation. In this case, the integration of the Makassar language into Indonesian can be a medium of inter-ethnic communication in all aspects of life in a universal society.

# References

- 1. Spolsky, Bernald. (1998). Sociolinguistics. Oxford New York: Oxford University Press.
- 2. Fishman, Joshua A. (1975). Readings in the Sociology of Language. New York: The Hague.
- Hamers and Michel H.A. Blane. (2009). Bilinguality and Bilingualism Secon Edition. New York: Cambridge University Press.

- 4. Chaer, Abdul. (2007). Morfologi Bahasa Indonesia. Jakarta: Rineka Cipta.
- 5. Rahardi, R. Kunjana. (2005). *Pragmatik: Kesantunan Imperatif Bahasa Indonesia*. Yogyakarta: PT Gelora Aksara Pratama.
- 6. Richard and Jack. C. and Richard Schmidt. (2002). *Longman Dictionary of Language Teaching & Linguistics*. Fourt Edition. London and New York: Routledge.
- 7. Zuhdi, Susanto. (2017). *Integrasi Bangsa dalam Bingkai Keindonesiaan*. Jakarta Selatan: Wedatama Widya Sastra.
- 8. Verhaar, JWM. (1977). Pengantar Linguistik. Jogyakarta: Gadjah Mada University Press.
- 9. Abbas, Asriani. (2014). *Perilaku Morfosintaksis Verba Bahasa Makassar*. Disertasi Doktor Program Pascasarjana Universitas Hasanuddin, Makassar.
- Kaharuddin, Nurhayati, dan Asriani Abbas. (2020). Dialek Makassar sebagai Penanda Kesantunan dalam Berbahasa Indonesia. Laporan Hasil Penelitian. Makassar: LP2M Universirtas Hasanuddin.
- Abbas. (2012). The Traditional System of Self-Named For Makassar Ethnic Indonesia. The paper presented on The International Congress of Language and Culture Sulawesi Selatan, Makassar.
- 12. Badan Statistik Sulawesi Selatan. (2022). *Jumlah Penduduk Menurut Kota/Kabupaten (Jiwa)*, 2020–2022. Retrieved from https://sulsel.bps.go.id/indicator/12/83/2/jumlah-penduduk.html (Accessed: October 5, 2022 at 9.35 p.m.).
- 13. Mattulada. (1991). *Menyusuri Jejak Kehadiran Makassar Dalam Sejarah*. Makassar: Hasanuddin University Press.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

