

# **“It must be necessary, it has to cover a need”: The adoption of mobile telephony among pre-adolescents and adolescents<sup>1</sup>**

by

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## **Abstract**

This paper considers the question of when it is appropriate for pre-adolescents and adolescents to adopt and use the mobile telephone. The question is considered from several perspectives using secondary literature and also material from various qualitative and quantitative studies dealing with this issue. The results show that it is generally when the individual enters their teen-aged years that the mobile telephone makes sense as a way to maintain contact and organize their social networks.

## **1 Introduction**

When does a child or teen “need” to have a mobile telephone? This paper examines this question by looking into various aspects of mobile telephone adoption by pre-adolescents and adolescents.<sup>2</sup> We are interested in examining the issues, criteria and the social context that must be in place before a mobile telephone “makes sense” for persons in this phase of life.

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<sup>2</sup> For the purposes of this paper, pre-adolescents are defined as those who are between the ages of 9 and 12 where adolescents are between the ages of 13 and 18.

An analysis of mobile telephone ownership among Norwegian teens shows that among certain groups the penetration is nearly complete. Indeed, it seems that adoption is so widespread – particularly amongst the older teens – that only those with some type of well thought through ideological opposition to the device are without (Ling 1999a). Analysis also shows that as many girls as boys have access to a mobile telephone.

Age	Own	Loan regularly	Loan on occasion	No access
13	38.9	4.17	17.36	39.58
14	54.11	4.11	13.70	28.08
15	68.8	4.83	8.28	18.62
16	75.52	4.90	5.59	13.99
17	72.52	5.34	3.05	19.08
18	73.08	7.05	5.77	14.10
19	82.14	3.57	2.38	11.90
20	82.46	7.02	1.75	8.77

*Table 1 Percent of Norwegian teens with access to mobile telephones, Nov-Dec 1999.*

Coming to the point of this paper, the data shows that there are clear age based differences in the ownership and use of the mobile telephone. The mobile telephone is almost ubiquitous among the 18 to 20 year-olds. One can also see that 90% of Norwegian 20-year-olds report having some form of access to a mobile telephone. Looking at the other end of the age range, about 60% of the thirteen-year-olds have some form of ownership. Indeed, in data gathered by Statistics Norway one sees that about 11% of 9-10 year olds and 26% of 11-12 year olds indicate that they own a mobile telephone (Vaage 2000).

The data shows that more and more teens gain access to and ownership of a mobile telephone in the period up to their 16<sup>th</sup> year. After this, the penetration is quite high and there are only marginal increases in adoption beyond this point. Another trend is that after the children reach the age of 18 they do not loan a mobile telephone “on an occasional basis” as often as the younger teens. This is likely a reflection of the fact that many teens move away from their parents’ home during this period and thus lose access to the mobile telephones of their parents.

The fact that pre-adolescents and adolescents own and use mobile telephones has sparked discussion. Issues of control over the children, the legitimacy of marketing products to minors, the role of parents and the innocence of childhood are all aspects of this discussion.

In the following sections we will discuss some general ideas of consumption in everyday life and also the role of adolescence in contemporary society. We will examine the issue using the analytical tools of several disciplines as well as the perspectives of various persons. Sociology and psychology provide us with several important insights into the adoption of mobile telephony by teens. Following from Goffman, we are interested in examining the situation and not the individuals. Thus, this paper tries to view the adoption of the mobile telephone from the perspective of the teens themselves, their parents and also from a more general societal perspective.

In the following sections we will turn to various moments in the discussion surrounding the use of mobile telephones by pre-adolescents and adolescents. These include psychological and physical development, linguistic competence, social need and the role of the mobile telephone in the development of a teen identity.<sup>3</sup>

## 2 Background discussion

### 2.1 Pre-adolescence and adolescence in contemporary society

Turning now to the issue of adolescence and the transition from childhood to adulthood, this is of course a profound and complex period. In Norway the child goes through several important transitions as they move from the pre-adolescent years into their teens and eventually out of school and into the beginnings of their adult lives. Perhaps the most significant transition is when they start middle

<sup>3</sup> One issue that will not be considered here is the impact of electromagnetic radiation on children. Aside from the fact that it is commented on, we are not able to discuss the matter in any reliable way and so we will set it to the side.

school at age 12-13. Here the child moves out of the more confined milieu of the elementary school into a larger social network. It is also roughly the time that sexual issues begin to arise and all the issues of identity formation are taking place.

A second transition – that was stronger for previous generations – is the child's confirmation that takes place when they are 14. Traditionally this was the point at which the child "came out" into adult society and was able to participate in openly adult activities such as parties etc. It was also the point at which one could present themselves as adults. In contemporary society it is still an important way-point, but it is not the same rite of passage as before.

Teens in Norway start *videregående* (high) school when they are 15 or 16 and are done when they are 18 or 19 years old. After this point they either continue as university students or go into a job. The transition from the obligatory school to either the university or the working world is also a major transition as it often marks the child's emancipation from their parents and the full establishment of their young-adult period.

Adolescence is perhaps the period where there is the least stability. Very few of the "bricks" that will form the edifice of a person's life are in place during adolescence. Their homes, education, social and intimate relationships and their careers are either in flux or have not been established. Where in childhood one is firmly embedded within the sphere of their parents, in adolescence one is moving into a more independent period of life. Thus, their place of residence may be in transition. They are gaining the educational background needed later on, but that is not complete. They have begun to meet possible mates but the relationships are often transitory, confusing and inconclusive. They have various jobs and sources of income but these are also transitory. Indeed, the very bodies of adolescents are in transition from those of children into their adult form.

In all of this period, the individual is learning how to function outside the sphere of the family. The child must master a set of skills and roles that they will be asked to assume more completely later in life. Skills to be mastered include personal economy, strategies for negotiation within various institutions, interactions with others, the role of sex in one's life, how one secures a job, the expectations of the working world, and a sense of personal style and integrity.

In spite of these stresses, adolescence is also a charmed period in one's life. Adolescence is the source of much contemporary culture. It is an age of innocence and it also includes increasing freedom from parents and the constraints of the home. Many children look forward to this period in their lives and are active in pre-socialization.

Not surprisingly, adolescence has been the focus of academic discussion. Looking somewhat broadly, there are the anthropological issues describing rites of passage and coming of age, the sociological examination of socialization and the psychological concern with development. Looking cross-culturally, Gennep (1960) found that there is little correlation between the age at which persons gain physical maturation with their social recognition as adults. He found that in pre-literate societies the relatively concise rite of passage into adulthood could occur at any point between the ages of 9 to 25.

By contrast, the transition from childhood to adulthood is more diffuse in industrial societies. In pre-industrial societies, where there is stability from generation to generation, there is often a premium placed on the knowledge of those who came before. By contrast, in industrial, and for that matter in post-industrial societies there are different dynamics. The child cannot expect to simply follow in the footsteps of their parents. The professions and life experiences of those who came before may not adequately reflect the reality of the child. The changes brought on by industrialism and the market economy mean that the experiences, perceptions and thus the social context of one generation is necessarily discounted, to some degree, by those that follow. The child must learn that his or her experience will be in some ways different from that of previous generations. Thus, unlike in traditional societies, the adolescent is active in the formation of their transition from childhood to adolescence and even more so in the transition from adolescence to adulthood. This has prompted Glazer and Strauss to talk of shaping transitions implying that both the child and the traditional agents of socialization, i.e. the parents, schools, etc., have a say. In this way the experience is interactive (1971, 57-88).

Placing this transition into the context of the broader society, there is the need for highly skilled laborers. This has resulted in the expansion of the educational system and an expanded period of youth. This also has the effect of removing significant aspects of socialization from the home. Formally, the school system takes over certain socialization assignments.

In addition, however, the age grading of the school system means that one's same-aged peer group takes a central role in the youth's activities, their sense of identity, consumption patterns and in their orientation (Hogan 1985, 2). According to Sullivan "The pre-adolescent begins to have useful experi-

ences in social assessment and social organization. This begins with the relationship which the two-groups [dyads] come to have larger social organization, the gang” (1953, 257). The experience with other peers is essential. While the pre-adolescent’s relationship to adults provides a sense of an ordered social reality, the peer group provides one with the sense that they can modify social interactions and thus these relationships provide mutual meaning (Youniss 1980; Harter 1990 see also Youniss and Smollar 1986; Savin-Williams and Berndt 1990; Giordano 1995). The adolescent peer group is a social institution that allows the individual to develop their own identity within a relatively bounded and protected milieu of the peer group.

One’s peers provide self-esteem, reciprocal self-disclosure, emotional support, advice and information. They provide the ability for one to be vulnerable among equals, sensitive to the needs of others and generally, perhaps for the first time, to acquire insight into social interaction outside of the family. These groups are largely protective of their members. They draw a symbolic boundary around themselves and resist the intrusion of others. This is seen in the development of what Fine calls *idioculture* and that may include a whole system of nicknames, jokes, styles of clothing, songs, artifacts etc (1987, 126). While there is support in the peer group, there is also teasing, gossip and infighting. This can take place for example in the chafing between one’s immediate peer group and the broader circle of friends (Giordano 1995). The peer culture’s influence is also somewhat selective. While it has profound influence on the selection of certain cultural items such as slang and clothing, parents and the adult world are influential in areas such as career choices (Brittian 1963). Fine has indicated that these activities may indeed provide the basis for enhanced group solidarity and loyalty.

Thus, the adolescent period is a distinctive portion of one’s life experience. It is a period in which the peer group is central. Further, the communication between the members of the peer group is of importance. The identity of the individual as well as the pattern maintenance of the peer group relies, to some degree on their ability to communicate.

Finally, of course, adolescence is a period of transition. The youngest adolescents are still largely a fixture in the parents’ homes where the oldest adolescents are often moving in other directions (Schwartz and Merten, 1967). It is within this context that we now turn to the adoption of mobile telephony.

## 2.2 The consumption and domestication of ICTs

In this analysis we are interested in the adoption of a particular cultural item by a group in society, i.e. pre-adolescents and adolescents. Nonetheless, the adoption of such items is a more general issue. Thus, before considering the specific situation of the mobile telephone among pre-adolescents and adolescents we will take a short detour in order to consider the issue of consumption, the “domestication” of items and the context into which one embeds those artifacts that they consume.

One of the classic analyses of adoption is provided by Rogers (1995a; 1995b) who looks at the diffusion of innovations. Another approach to this issue is to look not only at the spread of innovation, but the context into which it comes. Douglas and Isherwood move in this direction when they describe the meaning of the various artifacts in the lives of individuals (1979). Silverstone builds on this approach when he describes several points in the commercial consumption process (1994, 122-131). Silverstone describes the adoption process as including the issues of imagination, appropriation, objectification, incorporation and conversion. In summary, *imagination* is the way in which a commodity or cultural item enters our consciousness. This can happen via advertising, the example of our friend or through other channels. Here one sees the influence of Rogers’ “opinion leaders.” The next step, *consumption* is when the commodity crosses from the general society into the sphere of the individual. This can happen via a purchase, or the commodity can be provided by one’s job or via other members of the household. *Objectification* is a slightly broader concept that can include both imagination and consumption. It describes a mental process in which one thinks through the placement of the commodity into one’s own context. Here one considers their sense of self and identity. In addition they juxtapose the commodity against this understanding. In this way objectification is the process in which one legitimizes the consumption of the commodity and integrates it into their life.

Silverstone discusses the *incorporation* of the device wherein one comes to some type of personal understanding of the commodity and its role in their life. They come to the way in which the artifact is used, displayed and its meaning. Finally, there is the social definition of the individual vis-à-vis the commodity. This is what Silverstone calls *conversion*. It is that stage wherein the individual presents themselves to society in concert with the commodity and the individual. Thus it is not simply the individual’s personal understanding of the object but also society’s definition of the individual as moderated by the commodity.

The work of Fine, and his analysis of the adoption of slang among pre-adolescents, parallels that of Silverstone in that both authors describe the need for the individual or the group to become aware of the item through some type of social networking. Beyond this awareness the item must become incorporated into the world of the individual, via the response to some perceived need (Fine 1987, 128 – 131) and then be incorporated into their self-identity and also their social identity.

The progression through these phases describes a type of domestication, that is the readjustment of one's thoughts and perhaps physical readjustments in order to accommodate the adoption of commodities, artifacts and objects. It is important to note that the process is plastic and, in some degree, iterative in that new functions and applications for the object or item can arise with time. It is also interesting to note that it is not only in the adoption of ICTs that one goes through this process, but one must progress through a similar process if one chooses not to adopt an item, particularly if the item is broadly distributed in society. The decision, for example, not to have a TV is not because one simply forgets to buy one or is unaware of its existence. On the contrary, the decision not to have a TV is an active ideological stance that is perhaps more thought through than the decision to buy one. In the context of this paper, the decision to have, or not have a mobile telephone is somewhat in the same category. As we have seen from the statistical data above, the mobile telephone is nearly ubiquitous. Thus, the decision not to adopt, and also the decision to not allow one's children to adopt is also ideological in that it reflects an action (or non-action) which rests on an ideological legitimations (Berger and Luckmann 1967).

### **3 Elements in use of telephony among children and adolescents**

Now we turn to the question of when one becomes mature for the use the telephone in general and specifically the mobile telephone. Before considering the adoption of mobile telephony we will examine three issues having to do with the child's use of telephony in general. These are 1) the physical access and mastery of certain motor skills, 2) a certain level of psychological development and 3) linguistic competence with which to master the particular situations presented by a telephone conversation.

#### **3.1 Prerequisites for using the telephone**

The telephone is a fixture in the child's life from before they are social actors of any import. The telephone is held up to the baby's ear so that they can hear the voices of distant relatives. Small children are encouraged and cajoled into talking with their grandparents over the telephone before they really have a sense of how the telephone works, indeed before they really have a fixed sense of who these physically remote relatives are. Somewhat later in their life, a child's use of the traditional telephone is prefigured by their having access, a purpose for calling, familiarity with the telephone and finally mastering certain aspects of voice modulation (Veach 1981).

Physical access is simply being able to reach the telephone, obtaining permission to use it and being able to dial the number. Purpose vis-à-vis the telephone is, of course having the need to talk to another. The need may be either functional coordination, or it may be the need for some type of social interaction. Regardless of how this is defined the need must be formulated into the desire to use the telephone. After the child arrives at the telephone terminal, they must understand the functioning of the device itself, i.e. the dialing of the number, the meaning of the various tones and sounds, i.e. the dial tone, ringing and the busy signal etc. One must, for example, understand that one needs to lift the handset before one speaks.<sup>4</sup>

It is reported in the literature that children do not necessarily have a comprehensive understanding of the technical system requirements of the system. Holms describes an eight year-old, who said "hello" before lifting the handset of the telephone that belies a lack of technical understanding (Holms 1981, 93). In her study of children's telephone use Veach reports another example in the talk of a 5-year-old who tried to summon a friend he was calling in the period between the ringing on the telephone:

*A           Elijah.  
              ((first ring))*

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<sup>4</sup> There are also maturation issues associated with the use of the mobile telephone. Further analysis has shown that children's have difficulties maintaining and taking care of mobile telephones. Research that is being carried out shows that some pre-adolescents do not seem to have the ability to remember to take mobile telephones along with them and perhaps forget where they have left the device. Other maintenance issues include forgetting to charge the battery and also rough handling of the device.

- A        *Elijah, Elijah, what*  
           *((ring))*
- A        *Elijah.*  
           *((two rings))*
- AM      *Hello.*
- A        *You know what I would like to say? (Veach 1981, 99)*

While this example is charming in its naiveté it also illustrates how much social and technical knowledge underlies our use of the telephone.

Finally one must understand the special need to modulate the voice when speaking on the telephone. Given the background noise within the telephone system and also possible noise in the location of one's telephonic counterpart there is a need to speak slightly louder than in normal face-to-face conversation and also articulate somewhat better.

All of these elements develop during childhood and, according to Veach, are largely in place for the traditional telephone by the time a child is seven or eight years of age. Children in her study who were younger than seven had problems with various access issues. After that point they were able to manage the motor skills and manipulation of the instrument. They understand how to dial the device<sup>5</sup> and the connection between telephone numbers and persons. Permission from parents was also commonly afforded after age seven though Fine reports that this was not a *carte blanche* among the pre-adolescents in his analysis (1987). In addition, they were able to manage irregular situations, i.e. unexpected noises produced by the telephone system, the various signals associated with dialing etc.

### 3.2 Psychological development and the use of the telephone

#### 3.2.1 Psychological issues with regard to telephony in general

From a psychological and psycho-sociological perspective one can examine the role of cognitive development and socialization in one's preparedness to use the telephone.

There is the general discussion of developing a sense of the generalized other (Mead 1934, 152-160). That is, the socialized individual needs to set him or herself into and understand the situation of their interlocutor in order to manage a conversation.

Within the intimate sphere, the interlocutor has greater insight into the child's world and thus some of the normal courtesies can be dispensed with. In addition, the themes of possible conversation are a type of common property that are already in existence beforehand and need not be built up from scratch as with, for example, a fellow passenger on an airplane. The situation is more difficult for child-adult conversations when the two are strangers since the adult has only broad understanding of the child's life and the child has no understanding of the adult's. Nor is there the social or the linguistic competence on the part of the child to build up the necessary small talk that allows one to begin the process of making an acquaintance.

According to Piaget, as one approaches and moves through adolescence, one moves from a more ego-centered to a decentered understanding of the world. In addition, one moves from a more concrete to a more abstract comprehension of relationships. He suggests that by age twelve to fourteen one is able to deduce ideas about things that they have never seen. Piaget suggests that this is essential as it allows one to realize that others can have different perspectives. This, in turn, is important in the ability to take on various roles and to integrate various identity constructs (Piaget 1948; Brown 1990; Bush and Simmons 1981; Harter 1990; Savin-Williams and Berndt 1990). A similar approach is suggested by Mead when he discusses the notion that as one matures one is increasingly able to take the role of the other, at least in some abstract way. This allows for insight into the perspective of the other and it also allows the individual to gain a perspective on their own behavior. Mead goes further to suggest that the individual constructs a "generalized other" that is a type of mental summation of one's socialization. (Mead 1925, 268-75)

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<sup>5</sup> It is reported that children younger than 8 – 10 years old, however, do not understand the functioning of an older "dial" telephone as opposed to the more contemporary "touch tone" device.

### 3.2.2 Psychological development needed for the use of the mobile telephone

Getting ahead of ourselves for the moment we will now take up some issues of psychological development that relate specifically to mobile telephony.

There are two general issues here. The first is that the mobile telephone allows one to establish a social network that is beyond the reach of adults. Thus the individual must learn the various skills associated with the management of such a network.

Second, the ownership and use of a mobile telephone have an economic aspect in that the individual usually needs to have a certain economic wherewithal in order to maintain their subscription. A lack of experience with money and budgeting exposes, perhaps, certain impulsiveness and lack of foresight.

### 3.3 Linguistic competence

In addition to basic skills and psychological development, one also needs to have a certain linguistic competence in order to use the telephone. To be sure, the telephone conversation presents us with several unique conversational and linguistic elements. These include the fact that one's interlocutor is not physically present and thus cannot provide us with the normal visual cues and background information that makes the telephone conversation into a special situation.

A normal conversation can be seen as an interaction between at least two individuals where, in its most basic form, there is an utterance on the part of one that is observed and understood by the other. The second person perceives, interprets, formulates a response, and then creates their "response" utterance. In the basic formulation of the conversation, the first person then goes through a similar sequence.

The conversation described above is, however, only a reduced version of the interaction between two individuals as they interact. In addition to the central conversation, there is a secondary level of interaction that contains all the signaling needed for the management of the conversation. Other elements include groundings, i.e. the nods and small utterances that indicate that the listener is paying attention, the signals of one's intention to speak, the clearance signals indicating that one is approaching the end of a conversation turn, the timing of speaker transition, and the management of topic transitions.

In addition to the issues of the active management of a conversation there are also the issues of opening and closing a conversation, the timing between turns, changing topics and also of repairing a conversation when unexpected exigencies arise. All of these issues have a particular salience when considering telephonic interaction (Ling 1998c).

Moving into the linguistic development of children there are three areas of particular interest. These are: 1) the various routines associated with a standard telephone conversation, i.e. the opening and the closing, 2) the speaker timing, that is the pauses and overlaps between turn taking in a conversation and 3) the management of topic transitions. (Holms 1981; Veach 1981)

Two particularly challenging points in the conversation are the opening and the closing. In these situations, and especially in the closing, there are a complex of signals passed between the persons in the conversation. With the telephonic opening there is a set of learned interactions during which the conversation partners establish contact, identify each other and then establish the conversation (Saks and Schegloff 1973).<sup>6</sup>

In a similar way, the closings are an achieved interaction between the conversation partners. The closing, however, is more complex since it comes when the conversation has run its course. The two partners may not, however agree that the communication should be terminated. Thus, there is a set of signals that have to be exchanged indicating that the conversation is drawing to a close, i.e. increasingly long pauses between turns, various intonations, the exchange of phrases such as "okay" or even "okay, bye." None-the-less the conversation can be re-opened even after these pre-closings have begun if one of the conversation partners comes upon another topic to be discussed, i.e. "Oh yeah, I forgot to ask you about . . ." When this topic is extinguished the partners can then also enter into a new closing negotiation (Holmes 1981; Schegloff and Saks 1973; Veach 1981, 113).

Veach found that children as young as six and eight could routinely master the simpler opening routines on the telephone. She noted, however, that mastery of the closing sequence was common only

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<sup>6</sup> The staging of these seems to vary from country to country in terms of how one introduces themselves and the information that one offers at which stage in the opening (Holmes 1981).

among somewhat older children. The complete routinized version of the closing, i.e. the exhaustion of a topic followed by the pre-closing exchange of “okay” and then the formal exchange of good byes, this was in place for 9-10 year olds. However, it was only among the 10-12 year old children that Veach found the ability to vary the closing sequence, that is, to bring up new topics after the closing sequence had begun.<sup>7</sup> She also found that it was only when the children reached the age of ten that they could adjust the opening and closing routines to different types of callers, i.e. adult vs. children, friend vs. stranger.

Turning now to the timing within a telephone conversation Veach was interested in examining both the pauses between turn taking and also the overlaps. She found that as the children got older there were both fewer pauses and they were shorter in length. This speaks to the child’s increasing mastery of telephonic conversation management. She also found that as the child grows older there were more cases of simultaneous speech. She notes that the number of speech overlaps actually increases among the oldest children in her sample. While one might expect that overlaps in conversation would decrease as one gains competence, it is also easy to see that as one gains experience in conversation, they can begin to use the various grounding phrases discussed above to indicate their engagement in the discussion. Once the child controls the precision of timing, they can begin to use it to express meaning and emotion in their interactions. Thus, rather than indicating a lack of skills it seems to underscore the growing mastery of telephonic interaction. Veach suggests that this occurs at about age 9 – 10 (1981, 276).

There is also the issue of topic transition within a conversation. This is a complex issue that requires a sense of the other’s engagement, an overview of the flow within the conversation and the mastery of the techniques for introducing new topics. Veach found that while the youngest children were not able to master topic transitions, the 10 to 12 year old children were quite competent. The oldest children had the ability to see the conversation from the perspective of the other and also had assembled a repertoire of techniques with which to change topics.

Beyond these general dynamics there are also other aspects of socio-linguistic experience that the child gains as they mature in the adolescent years. There are, for example quite strong gender based linguistic characteristics. Strategies such as the introduction of topics (Fishman 1978), use of rhetorical and factual questions to maintain conversation and indicate interest, and forms of critique and interpretation when interacting (Treichler and Kramarae, 1983) are gender differentiated. Adjusting the tempo of conversation, the transition between topics, the use of inexpressiveness and perseverance in the maintenance of topics to control a conversation are also different for men and women (Sattel 1976). It has been found, for example, that mature women confirm their participation in a conversation more often than men and they also are more likely to express interest through the manipulation of pauses and interjected linguistic grounding devices such as “mm” and “yea” (Clark and Brennen 1991; Clark and Marshall, 1981; Clark and Schaffer 1989; Duncan 1972, Johnstone, Berry and Nguyen 1994, Kendon 1967, Saks, Schegloff and Jefferson). Many of these issues are also seen in the use of the telephone (Rakow 1988; Rakow 1992).

Beyond the issues of gender there are status issues and the expectations based on dialect that are imparted linguistically, i.e. who can interrupt whom (Veach p. 192). There is also the management of intonation (Holmes p.97).<sup>8</sup> These can be transition markers and signals of intimacy, emotion and lack of understanding. Their management in a telephonic world is different from their management in a face-to-face world. Finally, there is the repair of miscues and problems in the conversation (Schegloff, Jefferson and Saks 1973).

Thus, the linguistic dimensions of a telephone conversation develop through one’s childhood and are mostly in place when one starts into adolescence. In addition, however, one develops other aspects of their linguistic identity when they are well into adolescence.

#### **4 The adoption of the mobile telephone among early adolescents**

The adoption of the mobile telephone by teens is a new area that goes beyond our experience with the traditional telephone. This is uncharted territory as no generation of teens has had access to this type

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<sup>7</sup> See also Bjelić, (1987) and Minni (1985) for a discussion of children’s mastery of linguistic skills over the telephone.

<sup>8</sup> It is quite possible that some aspects of intonation are an issue related to the development and mastery of motor skills.

of technology. Thus, we are still making up the rules as we go. The elements described below are an inventory of some of these items. They include the general moral orientation of the society towards childrens' ownership and use of the mobile telephone, several functional criteria of use, the need for coordination within the family, the need for coordination within the child's peer group and finally the symbolic meaning of the mobile telephone. Each of these points will be examined below in terms of the appropriate age at which a teen might adopt a mobile telephone. In order to investigate some of these issues we have drawn on material gathered in a series of group interviews.<sup>9</sup>

#### 4.1 Moral and ideological issues vis-à-vis the mobile telephone

One of the things that arose in the group interviews is a simple morality regarding adoption of the mobile telephone. Many of the group interview respondents offered categorical, and almost visceral responses to the ownership of mobile telephones by pre-adolescents. Several of the informants simply thought that it was wrong for young teens to have a mobile telephone. They did not feel the need to justify their argument or provide elaborate lines of thought. It was simply wrong.

*I have to admit that it is sick that a 10-year-old child has a mobile telephone. (Grethe 19)*

*That is completely wrong. [My son] is 13. It is unthinkable that he will have a mobile telephone before he starts in high school. (Kari, dual career parents group)*

*I know of some small children with mobile telephones and I don't like that (Terje 19)*

There was a clear sense among the informants that this was a new phenomenon that had only recently arisen. The adoption of the mobile telephone has changed the context. This comes over quite clearly in the comments from the "young adult" group. They were able to contrast the situation with that from their, none too distant, adolescence.

*When I was 10 years old I didn't even know what a mobile telephone was (Terje 19).*

*The reason that we react is surely because we are not used to it because it was not like that when I was young. . . . But that will change and you will not get bug-eyed when you see a kid with a mobile telephone (Dorothy 23)*

*My sister is 11 and she wants a mobile telephone, you know. And more of, at any rate, the boys in her class have a mobile telephone. I was there [at her school] to get a house key awhile back during recess and . . . suddenly five telephones rang at the same time. (Andre, young adult group)*

*I think that one is too young when they are ten years. I don't know but maybe because I got my mobile telephone very late. (Grethe 19)*

As we will see, the adoption of this technology among teens gave rise to reflection as to what its effects would be. Some of the informants voiced a sense that the technology would not necessarily be positive.

Other data also shows that there is a difference between actual practice and the opinions of adults. The average age of the mobile telephone owners shown in table one is about 14 years of age.<sup>10</sup> In a separate study 500 parents were asked when how old a child should be before they are allowed to have

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<sup>9</sup> The group interviews included informants from four demographic groups, those under 18, those between 18 and 25, those who had teenaged children and two career families and finally those who were approaching retirement/retired. The themes discussed in the group interviews included the ownership and use of mobile telephones by various groups in society, the benefits and the drawbacks of mobile telephony in society and finally the perception of future developments in the area of mobile telephones. All informants were mobile telephone users. Within the corpus of material the informants actively discussed the issue of age and mobile telephone use. The material indicates that this is not an abstract or irrelevant theme. Quite the opposite, many of the respondents had well formulated notions of who should own a mobile telephone and at what age this was appropriate. Not surprisingly, the teen-aged respondents were not concerned with teen use, but were often quite moralistic about use among pre-adolescents and children. The older users were also often quite outspoken about the use of mobile telephony among adolescents.

<sup>10</sup> The age range for the material shown in table one was 13 to 20. If one includes younger children in the analysis where there is a penetration of mobile telephones, the mean age will obviously be younger.

a mobile telephone. The mean age was slightly more than 15 and the median score was 17.<sup>11</sup> While the data points to the difference between attitude and behavior, it also reflects the tenor of the group interview comments. The comments of the parents as well as their attitude indicate that they are uncomfortable with the relative youth of the youngest mobile telephone users.

Some respondents from the “parents” group spoke of the need to organize among themselves in order to withstand the pressure to buy a mobile telephone.

*It depends on the parents, if there are several parents. You know, a child, as a rule, does not have that many close friends. That means that the parents should also talk together, you know. It is possible to call and say, you know ‘Jens, my 13 year old, came home and said that [a friend] has gotten a mobile, is that right?’ You know, you can call with parents like that, his three friends, and say that is not true. Can’t we do that? It depends on us a little too, that we have to talk with the parents, the friend’s parents to stop it. Because then he cannot say that ‘he has one’ and ‘he has one.’ It isn’t true, you know. Because then the parents, then the children accept it that they didn’t get one and I don’t get one either, you know. There is something there; I think so at any rate. (Kari, dual career parents group)*

This comment is a tacit recognition of the social nature of teen’s adoption of the mobile telephone. The adoption is an element in the growing influence of the adolescent’s social network and its eclipsing of the parental relationship. The children have well-organized information about each other’s consumption patterns. Indeed, the types of things consumed within the peer group are often seen as badges of acceptance and identity. The issue, from the perspective of the parents, however, is somewhat more precarious since one is reaching into the internal workings of other families, and their sense of appropriate consumption.

As is obvious here, the individuals included in the group interviews had relatively clear notions of when a child should have access to a mobile telephone. There is, however, little agreement on the exact age at which this is appropriate. While some informants thought that it was acceptable for smaller children to have a mobile telephone – usually informants in the “teen” groups – others thought that one should wait until they started in the latter portions of secondary school. The teens that had participated in the group interviews had often obtained their mobile telephones when they were 13 – 14 years of age, indeed the age distribution of mobile telephone users shown in Table 1 indicates that there is a rapid expansion of ownership within this age group.

## 4.2 The need for and functional use of mobile telephony

Moving beyond the moral and ideological issues noted above there was another, more functional, theme that often arose in the group interview discussions, i.e. the preadolescent’s or adolescent’s need for a mobile telephone. Another dimension of this discussion was the ability of the individual to pay for their mobile telephone use.

### 4.2.1 Need and functionality

Turning first to the individual’s need for a mobile telephone, one of the basic forms of argumentation against their use was a type of needs test. This formed a type of mantra through the various group interviews. A common refrain among the informants was to ask if the child needed the mobile telephone. In the words of one informant, “*It must be necessary, it has to cover a need.*” (Marta) Another informant in the “young adult’s” group said: *What are they going to do with it? I don’t understand that.* (Terese) She went on to say:

*I think, at any rate that it is completely wrong that 12 and 13 year olds will have a mobile telephone. I have a sister who will soon be 14 and the thing that she wants the most is a mobile telephone. And there are several of her friends that have one. I think it is completely wrong. . . . I understand that if she is going out for the evening and Mom and Dad want to get in touch with her and things like that, but then she can loan their mobile telephone. And it is that she is going to have it with her at school and things like that. I simply don’t see the point with that because I don’t think that, in a way, they are able to control it (Terese).*

Other informants brought up the same theme.

<sup>11</sup> The study was carried out internally within Telenor in October 1999 and involved the examination of 500 parents with children in the age group 6-17 years of age.

*There is no need for a 10-year-old, there should not be, I am completely convinced of that. (Kari)*

*I don't think that [my son] needs it. . . . Is it actually necessary that everybody needs to talk with each other all the time?*

There were others who brought up examples (sometimes overblown) of the extravagant use of money for buying a mobile telephone.

*A couple I know that live nearby, they bought a mobile telephone for their daughter. The daughter is about nine years old. They used a lot of money on the mobile phone for the daughter; she got one of the newest models from Motorola or something like that. She is still in elementary school. . . . She just uses it so that her mother can call her and say that she should come home to eat dinner. But she could have arranged that beforehand (Marianne 17).*

*I want to say that if one buys a mobile telephone for a 13-year-old that costs 10 000 kr. (ca. \$1200) that it is no longer for a need but it is more to mark status, to show off and that is something else. It can be done in a lot of ways and one way is just that, to buy an expensive mobile telephone and it is obvious that it is something that is "in" and increases one's status among the gang. And so they cover a completely different need than calling when you see what the need is and the way that it is a way to show off. (Arne)*

The 10 000 kr telephone is another dimension of the needs argument. It speaks more to the use of the mobile telephone as a status object than its functional use. By extension, it is not "needed". One also sees here a redefinition of the needs issue. The need for safety and coordination is accepted but not the use of the mobile telephone for status display. The need for calling is acceptable, but not the consumption of unnecessarily expensive items in order to do that. Thus, this is a slightly different comment.

#### 4.2.2 Payment

Another issue that commonly arose in the group interviews was the ability of the adolescent to pay for the mobile telephone. The ownership and use of the mobile telephone has been described as a way for teens to get "adult points." One's ability to earn money, budget and plan expenses is seen as an indication of their movement toward adult status. From the perspective of the teen, their ability to pay for the mobile telephone is also seen as a symbolic confirmation of their adulthood. (Ling 1998a)

Not surprisingly, the ability to pay for one's mobile telephone use was seen as a criterion for ownership among the informants in the group interviews. Interestingly, it is the teens and the young adults who voiced this opinion most often.

*I think that if I had a child I would have said that they have to earn the money themselves and if they find out that they cannot afford to have a telephone then you can drop it. Because not every 11-year-old can afford to, how much is allowance now? (Eva 22)*

*[One is old enough to have a mobile telephone] when they are old enough to pay the bill. (Inger 17)*

The decision as to who pays for the telephone bill is not always an easily resolved issue however. While the teens can see payment as a badge of maturity, forcing one to pay can also be the nub of disagreement between parent and child (Ling 1998a, Ling 1998b). This is also seen in the comments of an 18-year-old informant from the current round of group interviews:

*Interviewer: Has it been a topic of discussion with your parents that your telephone bill is too high?*

*Ida (18): Yeah, more than once.*

*Interviewer: Have they tried to give you the responsibility for paying?*

*Ida: Yeah, they have tried but they still pay.*

The ability of a teen to pay for a mobile telephone is also placed into the context of their understanding of money and monetary issues. Several of the "young adult" group noted the difficult ties associated with the payment for a mobile telephone.\*\*\*\*

*Children call out [from the house telephone] and they do not have any concept of money or nothing and so they just call and call all the time. Dorothy (23).*

*That is probably why they have invented pre-paid subscriptions so that they can use money without a bad conscience. But then the money goes really fast. (Andrew 17).*

Thus, the mobile telephone has become the access point to the more traditional discussion of adolescents' understanding of money and monetary issues. On the one hand children have a limited economic wherewithal<sup>12</sup> and thus it is, perhaps, too much to ask them to pay for their sociability via the telephone. In addition they often have an impulsive relationship to consumption, i.e. there is a limited ability to apportion out consumption. At the same time, teens are among the heaviest users of telephony (Ling 1998b).

Previous analysis has shown that the parents of younger teens often pay for their mobile telephony use while the situation is often the opposite for those who are older (Ling 1999b). Disagreement over the payment for telephony is a particularly nettlesome issue in homes with children in their mid-teens. As the adolescents move into the later stages of the period they often have jobs and hence their own income, and they also see it as a resolution to pay for their own telephone use.

The development of pre-paid cards has eliminated some of the more extreme consumption issues vis-à-vis the mobile telephone. It has also meant that teens are forced to economize in their use of the mobile telephone, something that in itself is a motivation for the use of text messages since they are generally cheaper than voice calls.

### 4.3 Mobile telephony within the context of the family

Up to this point we have only considered the ideological, moral and practical issues surrounding the mobile telephone. In this section of the paper we will be moving into the use of the mobile telephone in concrete social contexts such as the family and the peer group. Looking first at the family, the material from the group interviews, as well as previous research, points to three issues regarding teen's use of the mobile telephone vis-à-vis the family. These are coordination, security, parental control and emancipation.

#### 4.3.1 Coordination

As with any social group, there is the need for coordination within the family. Making appointments, rearranging schedules and the like is one of the organizational imperatives (Ling and Yttri, forthcoming). One can suggest that the mobile telephone can be used in this situation. The data from the group interviews, however, indicated that direct, face-to-face interaction is seen as the favored mode of coordination for families with smaller children.

*It is really lazy of parents when they need to call children and tell them that it is time for dinner! (Grethe 19)*

Children and even young adolescents move in a relatively small geographically area and thus, there is often little need to maintain electronic connections. The informants in the group interview noted that children move in a relatively small circle of friends and small physical radius.

*[When I was younger] I was more in the neighborhood, I was together with a few friends you know. My parents could just call the parents of my best friend and we were playing there (Rita 18).*

*One generally knows where ten-year-old children are. If one is a parent they always ask their ten-year-old son or daughter where they are going and where they are, and that is like, where they are. And if they are at somebody's home then you can call them. They get that far away (Gro 18).*

As the children become older and their schedules and interactions become more complex it seems that the mobile telephone is more acceptable. There are, however gender differences between parents when considering the acceptability of using mobile telephony for the resolution of everyday coordina-

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<sup>12</sup> Data shows that one in four 16 year olds has a job, whereas that has risen to over three of four for 19 year olds (Vaage 1998). Analysis has also shown that working teens are more likely than others to own a mobile telephone (Ling 1998a). In 1995 analysis showed that Norwegian teens used about 1575 Nkr (ca. \$175) per month for the purchase of various items (Brusdal 1995). This material was gathered before the widespread use of the mobile telephone by teens. A Danish study shows that 16-year-olds have a mean of 1700 Dkr. (ca. \$200) spending money per month (Dortner 2000).

tion issues. Earlier research has shown that fathers are more likely to accept the use of technology to solve such coordination issues (Ling 1999c).<sup>13</sup>

Another side to coordination arises when considering the children of divorced parents. It has been found in earlier work that communications between non-resident parents and their children can be meaningful for both the child and the parent (Castelain-Meunier 1997). In some instances, it has been reported that the non-resident parent has purchased a mobile telephone for their child. Sometimes the children can be quite young. In cases where the adults are not able to agree on the rules of contact this creates a parallel communications channel that is, to some degree, outside the purview of the resident parent. At the same time, the mobile telephone allows for the parents to communicate and coordinate with their child without needing to go through the filtering of the ex-partner.

Our data also provides a glimpse into this issue as seen in the comments of a divorced father talking of his 16 and 20 year old sons.

*My two oldest, they live with me every other week and then it is good to get in touch with them because then I know where they are if they are at \_\_\_'s house or out. Then I know where they actually are if I want to get in touch with them. I can call home to her and say: 'Let me know when they are coming.' But if I am a little late it is ok [with the mobile telephone]. Then I feel that I have a little better overview over where they are, at any rate I can get in touch with them. (Tom)*

Here we see the use of the mobile telephone in a family with, perhaps special needs introduced by the divorce of the parents and the age of the children involved. There is a sense that it is acceptable for one to use the mobile telephone for this type of activity.

#### 4.3.2 Parental control

Another issue that arises when discussing the mobile telephone within the family is the issue of parental control. One of parents' responsibilities is to have an overview of their children's activities (Brown 1990, 179). It has been suggested that new communications systems, such as the mobile telephone, change the power relationships within a group (Manning 1996). This is obviously the case with the mobile telephone. The child's ability to develop and maintain social contacts outside the purview of the parent is enhanced via the use of the technology.

When communications are routed through a centralized channel, such as the family telephone, there is the opportunity for the parents to develop a certain overview over their children's social group and its interactions. The mobile telephone – and the mobile answering service that is usually combined with these subscriptions – was seen by the adolescents in the group interviews as being more private. This allows the adolescent to develop a parallel social world that is outside the direct overview of their parents.

*If I am not home and if I don't have a mobile telephone then my parents would have been clear about all the people I hang out with and if they [the friends] wanted to give me a message when I am not home but instead put it on the telephone answering machine then they would have to be fast on their feet when thinking about what they want to say. When you have a mobile telephone then you have a private answering machine and a private telephone (Erika 17).*

Another issue that was clear to the teen-aged informants was that the caller identification function of a mobile telephone allows the teen to avoid the communications from their parents when it would be socially awkward to do so. They need not answer the calls of their parents and, if confronted, they simply say that their battery was dead or that they had not heard the device ringing.

Thus, the mobile telephone allows for a new type of freedom for adolescents. At the same time it focuses attention on the issues surrounding the parent's control over their child.

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<sup>13</sup> Further analysis has shown that the penetration rates of mobile telephones among teens allows for new forms of familial coordination. Interview material shows that, in the case of teens without mobile telephones, instead of calling the parents' or their children's colleagues when they are in search of their children, parents call the children's colleagues directly on their mobile telephones. This development underscores the strength of the mobile telephone in the social networks of teens. Another parental adaptation is their use of text messages to reach their children, a technique that they often borrow from the teens themselves.

### 4.3.3 Security

One of the main “functional” justifications for ownership of a mobile telephone was that it provided a security. This argument was not made in the case of smaller children but rather for those teens that had begun to have a broader range of movement.

*I have a boy who is 17 and is in high school and he has not gotten a mobile telephone yet but he can loan one occasionally. But now I am thinking about a cheap one, one that is functional to have. Because he is beginning to go out now and then and he goes out to the city. And it is not that he needs to call me or that I am going to call him, because I don't do that either. But there is. . . **if something happens or something**. He was at something or other last summer, a conference at the university and he missed the last subway from Sogn or something. And then he could have called and we could have come to get him then. We had planned that he would go together with someone on the subway and they didn't make it. And they stood there. With things like that I think that it would be great to have a mobile telephone (Anne)(emphasis added).*

Another mother took up the same issue when she noted her concern for her daughter. This concern was, however, weighed up against the desire that her daughter be able to experience the world.

*Marta: I have a 17 year old and the worst thing I know is when she goes downtown. I am so afraid but I just have to accept this you know. But it helps that she has a mobile telephone because she can call if something happens. It is not to control my daughter that she should take her mobile telephone when she goes out, but it is, .ahh . . .*

*Interviewer: For her safety?*

*Marta: 'If something happens, call home and we will come immediately!' you know. Because she needs to go out and experience Oslo. She has to learn about the world.*

One sees here the weighing of a difficult balance between the child's need for a safety net vs. the desire that the child learns to operate as an independent individual. It is, of course, an unclear balance. The mother sees it proper that the daughter is moving out in the broader world. None-the-less, she is still concerned for her child's safety and protection in certain situations (Savin-Williams and Berndt 1990).

The mobile telephone provides a partial solution here. It is a discrete link that can be used if needed while still providing the child the freedom of movement that they desire.

### 4.3.4 Emancipation

The conflicting demands of parental control and security versus the growing independence of the child are major elements in the process of emancipation. This process, in which the adolescent takes on greater responsibility and moves further from their parents' sphere, is not a single unidirectional movement. Rather it seems to be made up of a series of episodes wherein one or the other partner asserts their prerogative.

Emancipation also has a salience for the adults. As we saw in the previous section, they have had control and responsibility for a child. On the other hand, they express the desire that the child be a functional adult. The dilemma is not easy to resolve and the mobile telephone underscores its arrival. Informants in the “dual career parents” group, for example, thought that the youngest adolescents were clearly still within the control of the parents. Thus one mother, Marta, asked rhetorically.

*Don't you decide for a child when they are 13-years-old, what they should use their money for, doesn't one do that?*

This issue is less clear later on. The mid-teen years seem to be the high water mark of the transition. This is seen in the comments of informants in the “dual career parent” group.

*Marta: But that day that you release them, that is a transition . . . There is a period when they are grown-ups and they are. They can take care of themselves. But that middle period, that is dangerous.*

*Moderator: When is the middle period? . . .*

*Kari: When they begin in upper secondary school (videregående skole),<sup>14</sup> 16 years, from when they are 16 until they are 20.*

One should not be surprised that the teenaged informants had a different perspective. While noting that the device allowed for security and coordination, they were also quite clear about the potential for being embarrassed by the inopportune calls from their parents. Thus, they often used various techniques to protect themselves from this type of interaction.

*Nina (18): There are telephones where you can do it like if a certain number calls it goes right into the telephone answering machine, for example if parents call then it goes right into the answering machine.*

*Arne (17): I do that.*

*Interviewer: You do that?*

*Arne: Yeah, when I am out in the weekend I do that.*

*Interviewer: Who do you exclude?*

*Arne: The family.*

Another boy (Morten 14) said

*"I usually block my parent's number . . . but then there is a lot of hubbub when I come home."*

These conflicting perspectives are the stuff of emancipation and also the stuff of adolescence. The various issues of control, coordination, security and freedom are resolved during these years. It is not a simple linear process, rather it is episodic and the adolescent's adoption of a mobile telephone is in many ways one of the defining episodes.

The mobile telephone has established a niche in the lives of the teens vis-à-vis their family. It allows for the provision of safety, security, coordination as well as a type of careful emancipation. This said, the role of the mobile telephone is not without problems. It can accelerate the emancipation process and loosens parents' control. This is seen as coming too early in the eyes of the parents and too late in the eyes of the teens and therein lays the potential for disagreement, mistrust and misunderstanding. This disagreement seems to be at its height during the mid-teen years. Before that, the authority of the parents is often mostly intact and after that, the child has often established himself or herself as an independent individual.

#### **4.4 Mobile telephony within the children's social network**

Beyond the role of the mobile telephone within the context of the family, the mobile telephone has become a fixture in the social interaction of the peer group in Norway. As noted above, adolescence is a period during which one develops their identity, and sense of self-esteem. As with the family, however, the peer group needs to communicate in order to function. There is the imperative for pattern maintenance. In this context it is possible to suggest that the adoption of the mobile telephone is not simply the action of an individual but rather it is the individuals aligning themselves with the peer culture in which they participate (Fine 1987, 133). This is perhaps more true of the mobile telephone than it is with other adolescent artifacts such as clothing since the mobile telephone is, in the first instance, an instrument with which one communicates. Beyond this the mobile telephone also communicates symbolically. The façade of the device, the type and its functions indicate something about the owner. Finally the very ownership of a mobile telephone indicates that one is socially connected.

##### **4.4.1 Expansion of the social horizon and the need for coordination**

We have suggested above that the child moves in an ever-expanding social circle. One of the critical social transitions for a child is the conclusion of primary school and the beginning of middle school (Brown 1990, 181). This transition, which comes at about age 13 in Norway, has the consequence of vastly expanding the child's social horizon. Previous to that point one's social world is relatively small and local. One of the mothers in the "dual career parents" group noted:

*They don't have as big a range when they are 10 years old as when they are 17. They stay closer to home and you have more of an overview of where they are. (Marta)*

Informants in the teen group interviews echoed her comments.

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<sup>14</sup> This is the last 2-3 years of the obligatory education and is usually completed when the child is about 18 years of age.

*How big a range does a nine year old have? It is like, I was in the neighborhood, I was with a specific set of friends you know. My parents could just call the parents of my best friend and you were there and played or something (Rita 18).*

In most cases, when the child goes from primary to middle school they move into a world wherein their peers come from a much larger geographical area. The interaction with other students and with teachers becomes more disjointed as the teen usually moves between various classes as opposed to remaining in one classroom (Harter 1990).

The implication is that as one's social life becomes more complex (Robinson and Branchi 1997). The social network is much larger and the range of interaction grows. In addition, there is often the onset of puberty at or around this point bringing with it a set of thoughts and impulses that push the attention of the child in new directions.

In the group interview respondents spoke of the way in which the social horizon of the child expands.

*These 12 year olds, and 13 and 14 year olds also, they are very active in that huge circle of acquaintances that they have with sports and visits and, and when they begin with middle school then they start different things and there are different confirmation things<sup>15</sup> and everything else. And they love to send messages to each other and to talk and to maintain contact you know, they think that that is great. (Ola)*

As with the family there is also the need for coordination within the adolescent peer group. Research has also indicated that the use of the traditional telephone (Aronsen 1977, 31; Claisse and Rowe 1987; Kellner 1977, 292; Lohen 1997; Manceron 1977; Mayer 1977, 228-31; Skelton 1989) and the mobile telephone expands quite rapidly at this point. Analysis has shown that telephone use rises from an average of about five minutes per day at age nine to about 20 minutes per day in the mid teen years (Ling 1998a).

Coordination was seen as one of the major uses of the mobile telephone. It allows them quick access to information on the peer group's whereabouts and thus allow them quick mobilization (Lien and Haaland 1998). This was also found in the group interviews drawn on here.

*I imagine that 75% [of my calls] are like that. You just wonder about where they are or if they are coming or what they are doing or things like that. They just call to hear what is happening. We call before school to find out if they have left home or after school to find out what they are doing after school (Arne 17).*

The mobile telephone is used for the micro co-ordination of their social interaction. Since adolescents do not have the convenience of planning social interaction over the breakfast table, it is the simplest way for them to get into touch with each other. Both voice and text messages are used in this activity.

*Inger (17): If you have a mobile telephone, you can change plans along the way. You do not need to agree to meet either; you can just call whenever you want actually.*

*Interviewer: But how do you make agreements?*

*Inger: I don't know, you agree where and when you are going to meet and if there is a change you say that you will meet another place for example, if that is easier.*

*Arne (17): I usually just make plans by calling [on the mobile telephone]. 'What are you doing tonight?' 'I do not know yet.' 'Ok, I will call you later.'*

*Interviewer: It is such that you call and ask if you can do something together?*

*Arne: Yeah, for example today when I am here, I can just agree with my friends that I will call them, when I am done. Then it is easier than planning what you are going to do [beforehand].*

The need for coordination and direct interaction is intensified when the adolescents are preparing for social interaction as seen in the comments of one informant who said:

*On a Friday there are a lot more text messages than on Thursday because people are out and need to find out what is going on (Erika 17).*

This assertion is confirmed in the work of Manceron and her diary analysis of Parisian adolescent telephone use (1997).

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<sup>15</sup> In Norway the vast majority of individual are members of the state church and thus, confirmation is a common experience for most teens. Indeed there is a civil confirmation for those who are not members of the state church. It usually occurs when the child is 14 or 15 years old.

A related issue is the status of those who do not have mobile telephones. There is a concern that they fall outside the planning of the social group. The issue, however, seems to be more nuanced. In some cases those without mobile telephones are excluded since they do not receive the information on where and when the group is meeting. On the other hand, the ubiquity of the device means that one need only hang out with a friend who has a mobile telephone in order to gain access to peer group information second hand.

Thus, the transition from primary school to secondary school increases the complexity of social interaction for adolescents. In this context the mobile telephone is a technology that is easily adapted to fulfill this functional need and therein lies the desire on the part of the 12-13 year old teen to own one.

#### 4.4.2 Symbolic meaning of the telephone

It is too simple to say, however, that the mobile telephone simply fulfills a functional need for the adolescent. Beyond its functional capacities it is also a symbol (Douglas and Isherwood 1979, Silverstone 1994, 122-131). The importance of symbols is that their meaning is easily transferred and bequeaths status onto the user. In this case the meaning is that the owner of the device is progressing to a more mature status (Duncan 1972). There are two issues afoot here. The first is the issue of pre-socialization and the second teen's use of ideology.

The mobile telephone is a particularly powerful symbol for adolescents and their emphasis on peer interaction. It shows that one is accessible, and also in demand. Within the economic constraints, it allows expressive integration and it allows one to participate in "gifting" as seen in the sending and receiving of telephone calls and text messages. The mobile telephone indicates that the individual has reached a certain level of economic wherewithal and perhaps a level of technical competence. Finally, the mobile telephone, and in particular the consumption of the appropriate type of mobile telephone allows one to declare their identity. The ownership of the "correct" type of mobile telephone also shows that they are aware of the current trends in consumption and that they are active in the creation and maintenance of their own identity.

The object itself is invested with meaning and thus it is seen as a way for pre-adolescents to obtain the signs and symbols of the adolescent world. It is also seen as a way for the adolescent to get a foot into the adult world. That is, the mobile allows a type of pre-socialization. It is the adoption of the outward form of the subsequent stage in their lives.

The symbolic value of the device often proceeds its actual possession. Thus, where there is a growing "functional" need for the mobile telephone as the adolescent moves into the mid-teen years, it is seen as an object of desire by those who are still pre-adolescents. In the words of one respondent

*When you are in primary school it is surely extra cool [to have a mobile telephone] because then you are so big. (Emma)*

This desire is a type of pre-socialization wherein the individual is starting to prepare for their coming role as a quasi-emancipated adolescent. The individual has perhaps mastered the physical device, the linguistic moments of its use and the ability to take the role of the device.

The mobile telephone is also a way to see that the adolescent is also participating in the construction of an ideological world. The ubiquity of the mobile telephone among teens means that the individual needs to have an ideological position vis-à-vis the device. The ideology can either be acceptance or rejection of the mobile telephone, but in either case the same processes are afoot. That is, the individual needs to have the major constructs of the ideology in mind and also be able to articulate them via the use of various examples and illustrations.

We have already discussed the ideology of adoption. Silverstone (1994) and Fine (1987) describe the need for the individual or the group to become aware of the item through some type of social networking and also its incorporation into the world of the individual, via the response to some perceived need (Fine 1987, 128 – 131) and then be incorporated into their self-identity and also their social identity.

In many ways, these authors are describing the arrangement of the ideological apparatus needed in order to support one's adoption of a particular cultural item. In a parallel way, the decision to not adopt a cultural item is also an ideological decision. This is particularly true when the item is readily available in the culture and has already been adopted by others. The active rejection of various forms of slang, i.e. racial or homophobic slurs, illustrate this point. Rejection of the mobile telephone is also a type of anti-technology ideology.

It is clear that the mobile telephone has a currency as a symbol in Norwegian adolescent culture. It is widely owned, used in a variety of social situations and it is often seen as a symbol of one's emancipation from parental authority. Nonetheless, it has to be done correctly. It has been noted that as the

teen searches for a coherent sense of self there is an intense preoccupation with the manipulation and arrangement of the various props and facades (Harter 1990). This work is not always done successfully. As with any symbol it can be over done and further, getting it right is a slippery business. One person's notion of good taste is another's definition of gaudiness as is seen in the comments of two informants in the group interviews.

*Erika (17) He has a lot of money but it is still showing off you know, like with cars, it is showing off.*

*Nora (18) There are a lot of people that use it like a status symbol.*

To summarize this section, the ideology of ownership or, for that matter non-ownership is a product of the social group. Looking at the issue of pre-socialization there is a press for children approaching the transition to middle school to have a mobile telephone. This means, that in their minds the procurement of a mobile telephone would secure them a foothold in the adolescent world that they are on the point of entering.

## 5 Conclusion

The discussion has now gone through a series of issues regarding the use of mobile telephony by adolescents and pre-adolescents. We now return to the question proposed at the outset of the paper, i.e. when does a teen "need" to have a mobile telephone. We have reviewed a series of cross-cutting issues that both promote and retard the adoption of mobile telephony by adolescents. Now we will summarize these and try to explain the adoption curve shown in table one.

As noted above there is a set of transitions, i.e. from elementary school at age 12-13, confirmation at age 14, the beginning of high school at age 15-16 and the conclusion of the obligatory schooling at age 18-19. During the latter part of the 1990's the mobile telephone was a common confirmation gift for children. Coming as it does during their middle school years, and also given the relatively high cost of the device at that time, it was often seen as a good gift for the child at this point.

More recently, however, it has lost its currency in this capacity.<sup>16</sup> As we have seen, the actual social transition from the local milieu to the larger middle school experience comes somewhat before the traditional age of confirmation. Thus, the child is socially active in a much broader geographical area, there is a stronger need for coordination both within the family and within the peer group. In addition, the child has mastered all the basic linguistic and social skills needed for telephone use. Psychologically, they are able to take the position of the other and thus are more able to carry on a conversation in a fuller sense of the word. Finally, the symbolic currency of the mobile telephone is extremely high in the period leading up to the beginning of middle school. There is an intense pre-socialization that is taking place as the child tries to arrange their symbolic plumage for their coming debut as a middle school student.

There are also several things that weigh against the adoption of the mobile telephone in the period between the beginning middle school and confirmation. Parental control is often an issue of active negotiation. On the one hand the parents are often still asserting their control over the child while at the same time the child is both asserting their independence and also finding loopholes in the parents' network of control. Further, monetary issues are still not settled though teens are starting to have their own incomes and are able to finance some of their own activities. Finally, the moral issues of mobile telephone use are still open for many though the teens are often in the process of establishing various arguments for the functional need of the device.

The data presented at the start of the paper shows that indeed the period between 12 and 16, that is the middle school period, is the time when ever larger numbers of adolescents adopt the mobile telephone. The specific point in time varies of course but the theoretical dimensions considered here are in fact supported by the empirical research.

The next question is: will the adoption of the mobile telephone continue further and further down the age scale? It is clear that there will be a certain adoption of the device by pre-adolescents. However, it seems that this is a more difficult case to make. The symbolic value is clear, the social, psychological and functional issues are however less clear.

Finally, the material also shows that a certain percent of all teens, about 10 – 15%, have resisted adoption of the mobile telephone. Like those adults who do not purchase a television, these teens often

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<sup>16</sup> The device is also relatively less expensive and more accessible now that it was several years ago.

have clear ideologies against ownership and use. This decision is a part of their identity in just the same way that the mobile telephone itself is a part of the adopter's identity.

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