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Emotion and Interaction Control: A Motive-Based Approach to Media Choice in Socio-Emotional Communication

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Abstract: A large part of everyday communication is mediated by technology, with a constantly growing number of choices. Accordingly, how people choose between different communication media is a long-standing research question. However, while prominent media theories focus on how media characteristics affect communication performance, the underlying psychological motives of media choice and how different technologies comply with these are less considered. We propose a theoretical framework that links media characteristics with peoples' intentions to influence communication and present a qualitative study on reasons for media choice in socio-emotional situations. An analysis through the lens of the framework illustrates how users employ media to establish control over the interactional speed and emotional intensity of communication and thereby regulate their communication experience. Besides an advanced theoretical understanding, the present analysis provides a basis for a conscious design of communication media, to deliberately shape the way people interact with technology and each other.

Keywords: computer-mediated communication; media choice; motive-based design; psychological motives; interaction control; emotion control; uses and gratifications; socio-emotional communication

1. Introduction

Nowadays, a large proportion of everyday communication employs technological means and a vast array of various communication media is at our disposal. Instead of talking to someone face-to-face, we can, for example, make a phone call, leave a voicemail, or just send a plain text message. Still, it is a long-standing question how people choose between all those different channels available [1], and what makes a channel "the best choice". Despite its everyday relevance, there is no definite answer or comprehensive model of media choice yet—which, however, becomes understandable as soon as one considers the challenges that arise out of the ongoing technological development. In fact, research on media choice has to deal with ever new communication media with more or less different features and different usage patterns due to situational circumstances, increasing expertise, or social contexts.

To address this challenge and the ever-changing character of communication media from a technological point of view, we propose a theoretical framework that focuses on how people try to influence communication processes through a deliberate choice of media. Thereby, we aim to contribute to a line of research that puts needs and motives of control at the center of computer-mediated communication (CMC) [2–4]. While media are prone to change, psychological motives in interpersonal communication are not. Understanding these motives can help to explain behavior across situations as well as technologies and provide a starting point for designing media in a way that serves users' needs while avoiding detrimental effects on the communication itself.

In early media choice research, there was a common understanding regarding information transfer, that all artificial communication channels are inferior to face-to-face communication since

they were lacking nonverbal cues [5]. This was mostly based on the conception that communication media deprive the message of valuable information and because task performance was at the core of this research. However, later on, this rigid view became obsolete due to studies showing that communication media can reach the same levels, although it might take time to establish the necessary familiarity in interaction with the medium [6]. Still, the focus of research was on performance and factual information transfer, since new communication media were usually implemented in vocational contexts first. However, with the spread of communication media into everyday life, a more human-centered, socially-oriented scientific approach to the study of communication media emerged [7–9]. While private computer-mediated communication also serves instrumental goals (e.g., finding a date to meet for a coffee), socio-emotional issues (e.g., sharing positive news, canceling the long-planned date) are arguably just as, if not even more, important.

In the remainder of this paper, we propose a perspective considering psychological motives of control guiding media choice, put them into context with two dominating media theories originating from collaborative contexts and apply this theoretical framework to cases of socio-emotional communication (i.e., communicative acts that elicit positive or negative feelings under the presumption of social feedback). Drawing upon a qualitative analysis of reasons for choosing certain media in the context of an online-study with 194 participants, we apply the motive-based perspective to show how human choice behavior can be conceived by considering intentions to instrumentalize media capabilities, and discuss how the present framework may inform media design for positive experience and wellbeing.

2. Theoretical Background

The technological means people utilize to communicate, collaborate, and share information as well as emotions is constantly evolving. One way to deal with these ongoing changes is to examine why people use certain media and what for. The so-called uses and gratifications approach (U&G) was originally applied to mass media and people as an audience that actively seeks exposure [10,11] but was later extended to all kinds of media such as the telephone [12], blogs [13], or social media [14]. It explains the use of technologies with the social and psychological gratifications their usage provides, or, in other words, which distinct needs are satisfied by a certain medium. This approach perfectly aligns with the human-centered perspective of human–computer interaction (HCI): by linking media characteristics to the psychological motives they satisfy, reasons for media choice can be explained and conclusions for the design of such technologies can be drawn.

Communication, especially about emotional issues, plays a substantial role in people's wellbeing and is affected by the technology that mediates it [15–17]. Furthermore, in line with the assumptions of U&G, people are likely to anticipate the impact of different channels on the communication experience and, therefore, deliberately choose communication media in dependence of the socio-emotional circumstances. By applying a motive-based approach to media choice in socio-emotional contexts, subjective reasons beyond objective media characteristics are revealed and can be addressed in terms of better user experience. To this end, we will start upon two prominent media theories that revolve around objective media characteristics (i.e., richness and synchronicity) but will subsequently elaborate on subjective motives that have been shown to influence media choice in socio-emotional contexts, before introducing a theoretical framework to analyze media choice in terms of control over specific communicational aspects.

2.1. Theories of Computer-Mediated Communication (CMC)

Arguably, among the most influential theories on communication media is media richness theory (MRT) [18,19]. According to MRT, the best performances in tasks that involve communication over media are reached when the richness of the channel matches the equivocality of a task. Tasks are considered highly equivocal when the information they build upon can have multiple or conflicting interpretations, so that a shared understanding of its meaning has to be established. To this end,

communication media are categorized along four characteristics that foster this establishment of shared meaning: the ability to transmit multiple cues (e.g., nonverbal information, mimics), to implement a personal focus, the immediacy of feedback, and the variety of language the channel allows for. The best performance is to be expected when rich media are used in cases of high equivocality, while under low equivocality, leaner media are sufficient enough to exchange information without unnecessarily "overloading" the receiver.

Another prominent and further developed theory of communication media is media synchronicity theory (MST) [20]. Within MST, synchronicity is defined as "a state in which individuals are working together at the same time with a common focus" (p. 581), while media synchronicity is in turn "the extent to which the capabilities of a communication medium enable individuals to achieve synchronicity" (p. 581). Similar to the matching notion of MRT, MST predicts the best performances in tasks when the synchronicity of a medium fits the synchronicity a task requires. MST proposes five media capabilities that either increase or reduce synchronicity. High synchronicity results from high transmission velocity, that is, the speed of message delivery, and more symbol sets, that is, the number of ways information can be transmitted. Low synchronicity, on the other hand, is established through media that provide the possibility to rehearse a message before transmission (rehearsability), to process it longer or again afterwards (reprocessability), or to handle multiple transmissions at the same time (parallelism). Without diving further into the propositions of MST, it is a reasonable starting point when investigating media choices that are aimed to intentionally influence communication experience and outcome. As Dennis, Fuller, and Valacich [20] point out, MST does "not specifically address situations where some participants desire to [...] control how other participants interact [...], however, parts of this theory may be useful in this research area as well." (p. 579). This notion becomes particularly important, when media choice is not aimed at the best performance but other motives, such as self-presentational and relational goals [21], which become especially relevant in socio-emotional contexts.

In sum, two key concepts that emerge in both theories, MST and MRT, are synchronicity and richness. When further defining these concepts and characteristics of media, MST puts more emphasis on time-based characteristics, since speed of interaction, rehearsability, and reprocessability "most directly relate to synchronicity" [22] (p. 192). MRT, in turn, defines three (out of four) characteristics with regard to cues and information, namely transmission of multiple cues, personal focus, and language variety [23].

In contrast to MRT and MST, that propose which media should be chosen when, research on U&G explores which channels are chosen and why [24–27]. Additionally, MRT and MST take a reductionist approach and focus on certain objective media characteristics, whereas U&G conceives each medium in a holistic way. Combining elements from these different approaches, our framework allows to connect psychological motives of media choice with particular media characteristics. More specifically, we examine how different emotional situations might influence the preference for media characteristics that provide control over certain facets of communication.

2.2. Motives for Media Choice

Media choice, just like behavior in general, is highly dependent on contextual factors [4,28,29]. A universal distinction that can be used to categorize human behavior is that of approach and avoidance motives: approach motives promote behavior that is directed towards desired end-states, while avoidance motives activate a tendency to avoid undesired end-states [30]. For example, one person might volunteer to give a talk on a certain subject to gain respect among his or her fellow researchers (approach), while another one might refrain from it out of fear of being embarrassed in the public speaking situation (avoidance).

O'Sullivan [31] was one of the first to focus on the subjective media capacities that could serve avoidance motives in communication. In cases of negative messages that might threaten the self-presentational goals of a sender (e.g., confessing that one made a mistake) or a receiver

(e.g., accusing the receiver of a mistake), preferences for CMC (vs. face-to-face conversation) increased, probably since the stripped-down communication (i.e., less synchronous, less "rich" in terms of sensory cues) can reduce the fear of an anticipated, distressing communication. This is what O'Sullivan [31] called the "buffer effect" (p. 414) of mediated channels, such that they can provide a metaphorical shield one can hide behind [32,33]. Beyond that, communication media can affect the transmission of messages as well. For example, channels of an asynchronous nature provide time to construct messages the way they are intended before sending them [34]. Taken together, the buffer effect of an asynchronous medium can protect a sender from the distressing reaction of the receiver and, additionally, provides the sender with control over the interactional speed of the conversation. Thus, the strategic decision for mediated channels can be seen as an act of establishing protection and control in socio-emotional communication [35,36].

Conversely, there are also instances in which channel choice might be guided by approach motives, so that the sender does not strive for the avoidance of negative outcomes but actively tries to influence the situation in a way that it ends up with the most optimal outcome such an event allows for. For instance, in an examination of reason for media choice by Riordan and Kreuz [34], some participants appreciated a channels' capacity to "soften" the impact of a negative message on the receiver rather than avoiding his reaction. Apparently, while some individuals might experience control in difficult situations by avoiding direct exchange with others, other individuals might do so by approaching it. That is why Feaster [2] distinguishes between individuals in terms of their ability to use a channel to restrict certain forms of information (privacy control) and to regulate the flow of information (expressive control). Some individuals' preference to directly approach rather than avoid the other person in critical situations is also represented in the reasons for media choice reported by Kayany, Wotring, and Forrest [4]. By refraining from text messaging and making a call, one might not be able to strategically withhold information that easily, but it might facilitate persuasive attempts instead. Thus, to give up control over the message itself (i.e., content control) might, in turn, come with more control over the receiver (i.e., relational control).

Taken together, the basic psychological need of relevance is being in control of the situation, while "taking control" may look different, depending on whether approach or avoidance motives are dominant. In a communication situation, media choice is a means to pursue the need for control and align the communication with the dominant motive. Thus, depending on the current motive, media choice is used to speed up or slow down an interaction or to enhance or reduce its emotional impact. Note, however, that the present focus on approach or avoidance motives is only one perspective on explaining media choice, and also other variances in individuals' personality and behavioral tendencies can be relevant. For example, traits such as CMC anxiety [37], attitudes towards different media [38] and self-perceived competence regarding their usage [39] may play a role as well.

2.3. Framework

Based on the theories and empirical evidence outlined above, we propose a theoretical framework to connect media characteristics with reasons for media choice in cases of socio-emotional communication (Figure 1).

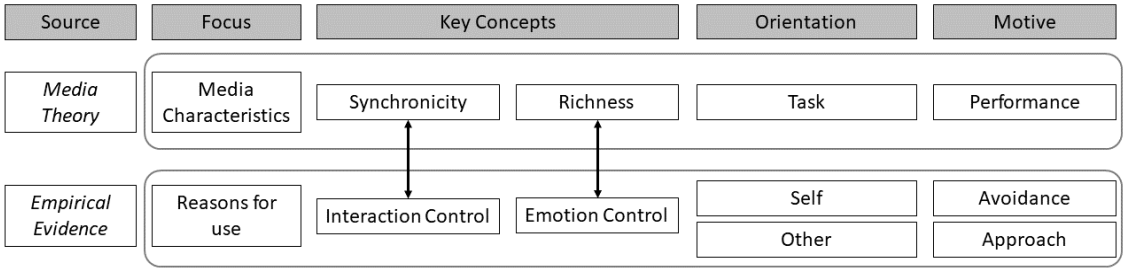

Figure 1. Theoretical framework developed from media theory and empirical evidence.

Compared to MRT and MST, we use a simplified and more colloquial understanding of the key concepts of synchronicity and richness. We refer to synchronicity as the conversational speed or interactivity a channel establishes, that is how much time one has to construct and process messages and how immediate feedback is to be expected. On the other hand, we refer to richness as the amount of cues a channel is able to transfer, that is how vivid and similar to face-to-face conversation the communication experience is. In contrast to both of those theories, which propose optimal media choices [23], we are interested in how people subjectively choose between channels. Therefore, we use these concepts in parallel to how lay people may think and speak about media and their choice rationales. For example, when people label a medium synchronous, they probably refer to the typical conversational speed and not the more elaborate MST perspective which includes a channel's "symbol variety".

Moreover, while MRT and MST address the issue of communication performance, we draw upon empirical evidence and suppose that in socio-emotional communication the overall aim is to avoid undesired end-states (avoidance) or reach desired states (approach) while focusing more or less on oneself (self-focus) or the receiver (other-focus). Accordingly, depending on the situation, media whose capabilities serve the underlying motives are more likely chosen.

As outlined above, communication media can induce different degrees of synchronicity and richness of communication. So, for the user, media choice can serve as a means to establish interaction control (i.e., influence synchronicity) and emotion control (i.e., influence richness). We assume that this leverage of control over the communication constitutes a decisive cluster of reasons for media choice in socio-emotional contexts. Whether this control is used to approach or avoid certain consequences may vary in dependence of sender, receiver, and situation.

Our theoretical approach builds on the work of O'Sullivan [31], who brought forward the idea of control through certain media characteristics, but it differs from his impression management model in several ways. First, O'Sullivan's model does not clearly distinguish between interactional and expressive control and how they relate to different media characteristics, respectively. Second, O'Sullivan's model considers positive impressions and long-term relational development but not other-oriented reasons and their immediate (negative) consequences, such as addressing someone directly to soften the impact regardless of an own exposure to negative experiences. Third, as O'Sullivan [31] states himself, people try to minimize risks and maximize rewards but each choice can come with a complex interplay of pros and cons. In our approach we further explore the assumed psychological motives behind this decision process, such that avoidance motivation highlights costs while approach motivation accentuates rewards.

The following exploratory, qualitative study served two main research goals. First, we aimed to complement existing research on media choice from a socio-emotional perspective by highlighting the various reasons why people choose communication channels with certain characteristics. Second, we aimed to test the suitability of the proposed framework to systematically categorize reasons for channel choice according to dimensions of control over communication. In this regard, the framework may also function as a basis to deliberately design communication technologies in a way that produces beneficial socio-emotional outcomes while avoiding other detrimental effects, thereby supporting wellbeing in the long run.

3. Materials and Methods

3.1. Sample

In total, 194 participants (29.4% male, 70.1% female, 0.5% other) were recruited for an online-study via institutional mailing lists containing students and working people as well as through Clickworker, a German-based crowd-working platform similar to Amazon Mechanical Turk. Their age ranged from 17 to 63 years (M = 28.5, SD = 11.2). The general frequency of use (on a five-point scale from 1 = "not at all"; 5 = "very frequently") of each medium was, in an order from highest to lowest,

"instant messaging (IM)/chat" (M = 4.36; SD = 1.15), "email" (M = 3.72; SD = 1.14), "telephone" (M = 3.37; SD = 1.06), "voice message/voice mail" (M = 2.36; SD = 1.38); "text message" (M = 2.08; SD = 1.09), and "video chat" (M = 1.97; SD = 1.12). All subjects gave their informed consent for inclusion before they participated in the study.

3.2. Materials

Participants were presented with short descriptions of hypothetical situations and then asked for their preferred communication channel and the reasons for their choice. The application of such vignettes [40] is a well-established method in psychological research to efficiently place participants in situations of interest while controlling for confounding factors. By pointedly varying specific wordings within the applied texts, changes in response to different vignettes can be attributed to these variations. By using vignettes instead of asking participants to come up with situations from their own experience, we intended to support imagination and ensure higher generalizability.

For the reasons described above and in order to stimulate variance in the surveyed answers, we used short descriptions of one-on-one communication situations very similar to those used by O'Sullivan [31] (p. 418) and only replaced the word "partner" as the receiver therein with a more general "other person". More specifically, the vignettes differed along two dimensions—valence and locus of the message. Regarding the valence dimension, vignettes were either supposed to induce positive or negative feeling states and thus comprised instances that were likely to elicit approach or avoidance motives. Regarding the locus dimension, messages either centered on the sender or the receiver of the message to create variance in whether the content is more significant to oneself or the other. By focusing on one-on-one communication and the variation of valence and locus, we implemented a very basic scenario of socio-emotional communication by covering the emotional aspect through positive and negative valence and the social aspect through another person as a reference point for the self or other locus of the message. We conducted this, again, in order to pursue generalizability and avoid the inclusion of the other, possibly confounding contextual factors, although it has to be noted that our applied vignettes, though similar in their structure, did vary to a higher degree than those in quantitative studies and provided several examples of suitable situations. This is because we were more interested in a broad range of individual experiences and reasons than in the specific effects evoked through systematic variation of the respective wordings.

By this means, we implemented four types of vignettes with situations representative of the two central components of socio-emotional communication. For example, a vignette representing the combination of negative valence and self-locus reads "Think for a minute about a topic, issue, or incident that would undermine how the other person thinks about you. For instance, this could be a discussion about you failing to meet his or her expectations, you doing something morally distasteful, you holding an opinion you know the other person would find repugnant, you being disloyal toward the other person, etc." (see Supplementary Materials for all vignettes). In another, yet unpublished study, we tested if these vignettes served as an appropriate means for manipulation by applying the self-assessment manikin scale [41] after media choice, a well-established measure for the emotional facets of pleasure, arousal, and dominance. As expected, participants reported less pleasure (mean difference = 4.646, 95% CI [4.265, 5.027], $p < 0.001$) and more arousal (mean difference = 2.127, 95% CI [1.778, 2.476], $p < 0.001$) when imagining the negative situation compared to the positive situation.

3.3. Procedure

Participants read the vignettes described above and were asked to put themselves in the outlined scenario. Subsequently, they indicated which of seven communication channels they would prefer in the given situation (i.e., "email", "text message", "instant messaging (IM)/chat", "voice message/voice mail", "telephone", "video chat", or "face-to-face conversation"). After choosing one of the seven available options, participants were asked to explain the reasons for their decision in an open answer to:

"Why would you prefer this channel? What speaks for this channel? What against others?" (cf. [34]). We implemented open-ended questions instead of predefined, theory-driven, or framework-based response options in order to leave room for previously unconsidered reason for choices. (Please note that the study was originally conducted in German language, and quotes were translated for the present paper). Additionally, people rated their frequency of use of each medium on a five-point scale and were asked to indicate their age and gender.

3.4. Analysis

In the initial stage of our analysis, participants' answers for each of the four vignettes were coded separately by two researchers following a dialectical procedure of deductive and inductive content analysis [42]. We did this to test the applicability of our framework that regards media choice as a means to influence emotional and interactional aspects of communicational processes (deductive, "theory-first") while allowing for categories to emerge that are not covered by this specific perspective (inductive, "theory-later"). First, open answers were coded in broad categories of reasoning about emotional and interactional aspects while skipping those answers to which this coding could not be applied. Subsequently, the yet uncategorized answers where analyzed separately and two additional categories, namely pragmatic and symbolic reasons, emerged and were integrated into the coding scheme. Additionally, the categories of emotion and interaction control were further specified according to whether reasons for choice revolved around oneself or the receiver and whether they focused on the sending or receiving phase of communication (see Supplementary Materials for the coding scheme). Similarly, the pragmatic reasons category was further split into convenience and habit. This resulted in a coding scheme with different degrees of granularity, and a multi-step categorization: If an answer contained, for example, a clear reasoning about how the media choice serves the sending of emotions for the sender, this category (self/sending) was ticked off. If it was not clear whether the participant chose the medium for sending purposes for his/her own sake or the receiver, both emotional sending categories (self/sending and other/sending) were ticked off. Additionally, if it was not clear if they focused their answer on the sending or receiving capacities of the channel, all four emotional categories (self/sending, self/receiving, other/sending, and other/receiving) were ticked off. The same applied for the interactional categories. Accordingly, the tables presenting frequencies of stated reasons for media choice in the results section is organized along the described schema.

After each step of the analysis process, results of both coders were compared and apparent discrepancies discussed until a consensus was reached and categories were redefined accordingly. In the initial analysis, where reasons were coded broadly as emotional and interactional, one source of discrepancy arose from the conception of "misunderstandings". Media choices to prevent misunderstandings could be conceived as a rather pragmatic reason to establish a common understanding of facts. However, a discussion of context led to the conclusion that it was more probably directed at an appropriate conveyance of intended emotions and the possibility of an immediate intervention as soon as the other person seems to get something wrong. That is why "less misunderstandings" was coded as a fit for all emotional and interactional categories.

Another difference between coders emerged regarding the categorization of answers containing a "direct reaction" as a reason for media choice. Arguably, "reaction" might be considered a signal for participants' focus on changes in emotion as a result of the communication. However, further inspection of the full answers rather hinted towards the respondent's intention to get an immediate answer ("direct" as the signal word), which is why these parts were assigned to the interactional categories. Furthermore, after the pragmatic and symbolic reasons categories were inductively created, some of the already coded answers were recategorized if the context-sensitive analysis revealed a better fit to the new categories. For example, referring to a channel as "more personal" was often directed at the symbolic meaning of the channel rather than the more emotional communication process.

Most notably, in line with our theoretical framework, we also intended to categorize answers according to underlying approach or avoidance motives, i.e., whether respondents based their decision

rather on its possible positive or negative outcomes. However, without the opportunity to ask follow-up questions, there was not enough evidence to warrant a sound interpretation of answers in this regard, and we refrained from applying this scope for further analysis (see Section 5.2.1 Implications for HCI research and Section 5.3 Limitations).

All these adaptions were integrated into the final round of coding. In the end, intercoder reliability was calculated and yielded values of Krippendorff's alpha between $\alpha = 0.842$ and $\alpha = 0.968$, which indicate at least good reliabilities [43] (p. 236). From the original number of 280 statements, 211 (75.4%) could be analyzed in line with our coding scheme and built the final sample underlying our reported results. The remaining statements were mainly excluded due to a lack of information since people answered with thin arguments (e.g., "to me it seems like the best way") or gave apparently nonsense answers. Only 3.9% of the original statements were actually valid and did not fit the coding scheme (e.g., "no tracking, data collection or Trojan horses", "our family situation does not allow for any other way", "you can see if other people are around").

Before the results are reported in detail, it has to be noted that our coding procedure allowed for respondents' answers to fall into several categories, since they might have given several different reasons, which asks for a careful interpretation of the aggregated, nonweighted quantitative data. Additionally, there is much variance in whether the subjective reasoning led to richer or leaner and more or less synchronous channels even under the same (hypothetical) circumstances, which also illustrates why it is challenging to predict media choice in nonspecific contexts (i.e., broadly designed vignettes) and independent of the respective individual. Therefore, instead of making clear predictions of what channel people choose and when, our intention is to present and structure the manifold reasons people brought forward for explaining their decisions. This provides insights into which purposes people pursue when choosing their way of communication and why they might prefer certain characteristics (and different degrees of them) over others in socio-emotional contexts.

4. Results

In an initial quantitative analysis, we explored whether there was a relationship between the kind of vignette and media choice. Since the expected value of some cells was lower than five, we ran Fisher's exact test, which yielded no significant relationship ($p = 0.147$). As can be seen in Table 1, as expected, people generally tend to prefer face-to-face conversation for socio-emotional communication. More surprisingly, this was regardless of the situation, although previous research [31] would have suggested a significant shift in preference towards communication media under negative circumstances. Arguably, the hypothetical nature of the study design might have given way to a social desirability bias, such that people overestimate their willingness to choose the "upright" confrontation regardless of the anticipated negative reaction. Nevertheless, for the design of communication technologies, it is crucial to consider what reasons underlay media choices and why one would prefer (not) to use them.

Table 1. Relative frequencies [% of column] of channel choice for each vignette.

Channel	Vignette			
	Negative Valence		Positive Valence	
	Self-Locus	Other-Locus	Self-Locus	Other-Locus
Email	5.7	4.3	4.3	2.9
Text message	4.3	1.4	0.0	1.4
IM/chat	15.7	21.4	25.7	20.0
Voice message	1.4	0.0	2.9	4.3
Telephone	1.4	7.1	10.0	14.3
Video chat	2.9	0.0	2.9	0.0
Face-to-face	68.6	65.7	54.3	57.1

As described above, the analysis of open answer data led to four general categories, namely (1) interaction control, (2) emotion control, (3) pragmatic choice, (4) symbolic choice. While the two former categories addressing the deliberate use of media to influence communication were already represented in our theoretical framework, the two latter categories referring to a more automatic selection process emerged as new relevant categories from participants' statements. Tables 2 and 3 depict the relative frequencies of the reasons according to the final coding scheme, clustered for the four vignettes (Table 2) and each of the possible channels (Table 3). Given the results of Fisher's exact test and the rather equal frequency distributions among different vignettes, it becomes even more important to take a closer look at the individual answers.

Table 2. Relative frequencies [% of row] of reason categories for each vignette [1,2].

Vignette	Reason Category										
	Interaction Control				Emotion Control						
	Self		Other		Self		Other		Pragmatic		
	Send	Rec	Send	Rec	Send	Rec	Send	Rec	Conv	Habit	Sym
Negative Self	11.4	10.8	7.6	9.2	11.9	12.4	9.2	10.8	4.3	2.2	10.3
Negative Other	11.0	9.3	10.1	10.6	11.9	10.1	10.6	11.9	5.3	4.0	5.3
Positive Self	13.8	12.9	12.4	12.9	9.2	8.8	9.2	10.1	2.8	3.7	4.1
Positive Other	12.0	11.6	12.0	12.0	10.3	10.3	10.3	10.7	3.4	2.6	4.7

[1] Abbreviations: Send = Sending; Rec = Receiving; Conv = Convenience; Sym = Symbolic. [2] Note: if a reason could not specifically be attributed to a single category on one level of the coding scheme, it is counted as valid for all categories in question (for further explanation, see Section 3.4 Analysis).

Table 3. Relative frequencies [% of row] of reason categories for each channel [1,2].

Channel	Reason Category										
	Interaction Control				Emotion Control						
	Self		Other		Self		Other		Pragmatic		
	Send	Rec	Send	Rec	Send	Rec	Send	Rec	Conv	Habit	Sym
Email	19.5	19.5	12.2	14.6	7.3	7.3	4.9	4.9	4.9	2.4	2.4
Text message	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	0.0	0.0
IM/chat	20.6	19.1	15.4	16.2	4.4	3.7	1.5	2.9	9.6	5.1	1.5
Voice message	14.3	9.5	14.3	14.3	9.5	9.5	9.5	9.5	0.0	0.0	9.5
Tele-phone	17.9	16.0	16.0	16.0	7.5	6.6	6.6	6.6	4.7	0.0	1.9
Video chat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0
Face-to-face	8.1	7.8	8.3	8.9	13.4	13.0	13.0	14.3	2.0	3.4	7.8

[1] Abbreviations: Send = Sending; Rec = Receiving; Conv = Convenience; Sym = Symbolic. [2] Note: if a reason could not specifically be attributed to a single category on one level of the coding scheme, it is counted as valid for all categories in question (for further explanation see Section 3.4 Analysis).

The following sections illustrate the four categories by exemplary statements and discuss relationships of the control categories (interaction control, emotion control) in relation to high and low degrees of richness and synchronicity. Notably, though the provided vignettes differed in valence and locus of the message, it turned out that respondents' answers mainly revolved around whether the message was pleasant or unpleasant, less if it focused on them or the receiver. That is why instances of positive and negative messages are reported separately for the two control categories (interaction control, emotion control) and only split up for self- and other-orientation in channel choice (while approach and avoidance motives are not reflected due to the reasons outlined above). Furthermore, though there were also rather general answers that covered multiple categories, the exemplary quotes

given below originate from those statements that could clearly be assigned to a single category on the lowest coding level, i.e., self- or other-orientation.

While emotion and interaction control perceived by an individual are especially tied to a channel's richness and synchronicity, pragmatic and symbolic reasons were mostly based on context in terms of valence and importance of the situation. Figure 2 gives an overview of the four different main categories of reasons for media choice that are applied to structure our results.

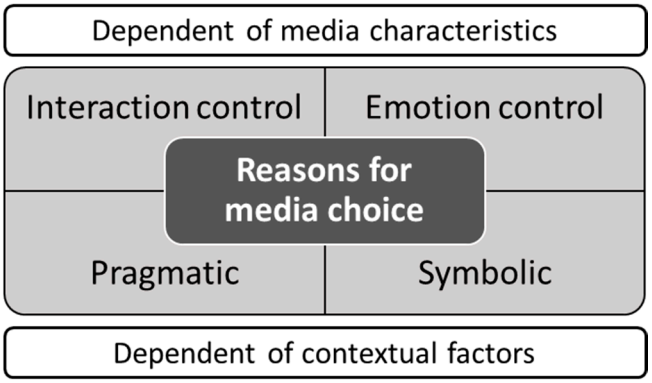

Figure 2. Four categories of reasons for media choice.

4.1. Interaction Control via Synchronicity

4.1.1. Negative Valence

When asked about which medium participants would choose for a negative message and why, one set of reasons emerged that addresses the synchronicity of a channel and how they are able to influence the speed of the back and forth of interaction in their favor. Actually, here as well as in many other cases, participants interestingly differed in whether they would prefer high or low degrees of synchronicity.

Self-Orientation: As expected, in many cases, people appreciated the asynchronous nature of some media since they gave them "more time to accurately phrase the message as intended" and "to postpone (and ignore) answering for a long time". However, there were also participants who sought for high synchronicity because it gave them "the possibility to explain themselves" since the "direct question-answer-dynamic allows for immediate justification". Besides those two self-serving reasons addressing the sending phase of communication, explanatory statements regarding the receiving phase were also provided. Asynchronous channels would allow them "to defer the processing of other's reaction" and "read the answer when" they are "ready for it", while the advantage of more synchronous communication was seen in the "immediate feedback, whereas a delayed answer would drive me crazy" and that one does "not have to wait forever for the judgment of the other person".

Other-Orientation: Apart from that, there were reasons that instead took the other person involved into consideration. Some of these are very similar in the effect the medium has for the conversation but differ in how they impact the receiver's behavior. For example, one participant said that an asynchronous channel would not allow the receiver to instantly transmit his or her reaction, thereby preventing "an emerging dynamic that might escalate", while another intended "to give her enough time for her response". On the other hand, some participants actually preferred that interactivity since it "disables the other from preparing a strategy" or "makes it impossible to avoid answering me". Congruently, there were two-fold reasons regarding synchronicity and the receiving process of the other person. Just like for the sender, some participants cared about the possibility for the receiver to "have time to process the information", pleading for asynchronous communication. In contrast, synchronous channels were valued as a means to establish "the possibility of immediate requests" for the other to allow for clarification but also because the other person "has to face the problem".

4.1.2. Positive Valence

Notably, when asked about why they would choose their preferred medium for positive messages, participants named reasons that were partly already represented in the answers regarding the conveyance of negative messages but also reasons that can be classified as contrary to those mentioned above.

Self-Orientation: For some senders, for instance, positive issues equally spoke for the use of channels with low synchronicity since they enable them to "better formulate" their messages and "read through it multiple times". However, many reasons for asynchronous channels instead indicated pragmatic reasons. Others perceived high transmission velocity favorably since they "could not await to share the information", preferred to sustain the "actuality", or to "immediately give way to their joy" because "the immediacy of emotion is what matters". Some senders also covered the consequences of the media choice for their own processing phase in a way that also implied more pragmatic reasons such as "I do not need an immediate reaction". Conversely, others specifically appreciated the chance to call for an "immediate response" with highly synchronous channels since they in turn could "not await the reaction" and would be immensely "curious how the other will react".

Other-Orientation: In accordance with the reasons on negative messages, a relevant proportion of participants based their open answers on how their media choice would affect communication for the receiver. Again, some of those can be categorized rather pragmatically in a way that it provides others with the opportunity to "read the message when he or she has time to" (i.e., receiving category) or to "answer at their convenience" (i.e., sending category). Several participants stressed the point that positive messages "are not prone to misunderstandings" and, therefore, did not intent to resort to synchronous channels, while others did so with the "possibility to directly ask further questions" in mind. Analogously to sender needs, it was also appreciated that more synchronous channels sustained a chronological closeness between the incident and the actual conversation about it for the receiver in order for him to "receive the news as fast as possible". Then again, a reason for asynchronous channels in favor of the other person was that one "receives the message immediately as soon as she is available", as well as the possibility that the receiver "will be surprised by the message".

To sum up, the results presented above indicate that people utilize communication channel synchronicity for interactional control in order to accelerate or slow down the conversation in their or others' favor. Which intention they pursue in a certain situation appears to be individual, though.

4.2. Emotion Control via Richness

4.2.1. Negative Valence

Another set of reasons concerning the transmission of negative messages focused on the richness of the respective channels and how they shape the conveyance and experienced intensity of emotion through that medium. Here, again, participants often brought forward reasons that supported either the use of high or low richness channels depending on their individual preferences.

Self-Orientation: Regarding the sending phase of communication, participants tended towards leaner media since this "makes it easier to be honest" and "to communicate unconstrained and sincerely" while one participant interestingly chose instant messaging since "feelings can be made clear through emojis", which implies that this way of communication might at times even be perceived richer than a face-to-face conversation. Usually, participants that chose conventionally richer media explained their choice with the possibility to clearly transmit their emotional state, that is "to better convey my feelings" or even "evoke compassion within the receiver". A common receiving capacity that leaner channels provide and was often mentioned is the previously discussed buffering effect that allows the sender to "be shielded from negative reactions", e.g., "you do not experience disappointment that intensely". However, one participant stated that he/she intends to achieve this avoidance of negative feedback by consciously choosing a richer channel, because it "makes it difficult for the other one to

get really mad". Conversely, people choose richer channels for receiving purposes to assess emotional states, e.g., "to better sense the other's regret".

Other-Orientation: An additional category of reasons focused more on the consequences the media choice would have for the respective receiver. One participant named voice messaging as the channel of choice, for one thing, because it gives him time to construct a message, but secondly, because the other person will probably answer via voice messaging, too, which gives the receiver the opportunity to "convey his or her actual emotions through their voice". Furthermore, some answers addressed the other person's receiving phase. Participants considered in their choice that "the other might find a real conversation uncomfortable" or "might unintentionally be hurt by mimics", therefore, preferring a leaner medium, while others valued richer channels in negative situations, since they "make it easier for the other to empathize with me" and "to comprehend my actions".

4.2.2. Positive Valence

Reasons about why people choose certain media for the conveyance of positive messages also partly focused on their richness and influence on emotional intensity, respectively.

Self-Orientation: Regarding the transmission of emotions, people, for example, emphasized that richer channels allow them to "express their joy, and emotions in general, most appropriately", to "capture their emotions" and "convey their excitement better", even if it is through a rather asynchronous "joyful voice message". On the other hand, some participants did care less about these affordances and resorted to leaner channels since positive messages "do not require non-verbal information" because of the lack of potential misunderstandings. Additionally, one participant interestingly preferred text messaging, although it is conventionally supposed to be a channel with lower richness, since the use of emojis enables him to show an overly positive reaction, even surpassing face-to-face communication. Senders also showed the intention to influence their processing phase of communication by choosing leaner media because they either ascribe less importance to the reaction to positive messages or "are not sure about their reaction and afraid it could not be as expected". On the contrary, advantages of richer media in this regard seem to lie in "the unfiltered experience of reaction", "the feeling of common happiness", or the ability to intensify the experience since "a joy that's shared is a joy made double".

Other-Orientation: Here, as well, open answers of participants implied intentions to affect the communication behavior and experience of the receiver. Senders might choose communication media with the presumption in mind that it calls for the receiver to respond over the same channel. Thus, people might choose rich channels because it enables "the other to show their reaction appropriately". One participant, for example, indicated voice messaging as their channel of choice since "a voice message will supposedly come back and emotions can be conveyed through voice". Another set of reasons revolved around how the other might receive the message. While a couple of respondents worried about that the receiver might be uncomfortable with an overly positive message (similar to negative messages), most participants appreciated richer ways of communication since they "intensify", "have the biggest impact", and "let the other actually feel the excitement".

The aforementioned reasons illustrate that people deliberately choose media according to their richness in order to either attenuate the emotional experience or to convey and receive emotions accurately. Here, again, motivations appear to be individual, but the emerging categories back up the notion of emotion control through channel choice.

A comparison of reasons for media choice in positive and negative situations supports the presumption that avoidance motives in negative situations and approach motives in positive ones are in many cases decisive for channel preferences, although individual differences in the perception and usage of several media as well as an interpretation of the situation and the care for the receiver might still cause people to act otherwise. Apart from the two categories of reasons proposed by our applied framework, namely emotional intensity and interactional speed, two other categories emerged within the analysis process that were also reported by other authors.

4.3. Pragmatic Reasons

Statements in this category referred to simple pragmatic reasons for media choice, some mentioning explicitly that emotional matters were of no concern, e.g., stating that the issue "is not critical" and the pragmatic media choice "therefore sufficient". The pragmatic category encompasses reasons that are either tied to the instrumental advantage of the medium in the given situation or rather based on behavioral habits. The former is reflected in open answers that emphasize that the chosen medium is, for example, "easier", "faster", or "more comfortable to use". People in these cases mostly appreciated the use of asynchronous media since they could "immediately leave the message", it "does not cost anything", and "takes less effort". The latter group of pragmatic reasons focuses on habits that are not bound to certain circumstances but represent established communicational routines. Answers falling into that category, for example, were "It is my favorite channel.", "I just hate using the phone.", or even "We use this channel the most.", implying a habit that evolved with a specific receiver.

4.4. Symbolic Reasons

The second category that emerged throughout analysis is shaped by a focus on the reception of media choice by the receiver and was especially relevant in negative contexts, namely the symbolic value of the chosen channel. Answers in that category often referred to situations that were perceived as highly important, no matter if in the positive or negative direction. Participant answers that represent this cluster of reasons mainly referred to the channel as being "more personal", "appropriate", or "the right one to choose". The answers indicate that communication media, apart from their specific characteristics, are also socially conceptualized in a way that their choice itself already sends a message. This is particularly illustrated within participants' answers that stated that the channel is, for instance, "more sincere", underlines "the seriousness of the issue", or "shows personal appreciation". Above that, a similar group of reasons representing the symbolic value of media choice also focused on whether the medium fits the situation. People occasionally explained their choice by elaborating on how it is "more formal", "not too personal, not too distant", or "more appropriate in friendship relations". In these cases, there seemed to be just one "right" choice that would be perceived socially acceptable in a given situation, so that there was no room to deliberately choose a channel that might serve personal motives.

5. Discussion

The present research connects media characteristics with reasons for media choice in cases of socio-emotional communication. The suggested framework displays a number of relevant influencing factors that may help to understand how people choose between available communication channels, and to align media design with an envisioned experience. As our findings show, there are numerous reasons why it is hard to predict peoples' preferences for different communication channels.

First, this is because people do not always base channel choice on rational factors or principles of efficiency. Altogether, our findings hint towards a context-dependent shift from instrumental goals to self-presentational and relational goals. While theories such as MRT and MST propose media choices that serve instrumental goals, there is a wide array of self-presentation and relational goals that also contribute to individual decision processes. If people would act solely on objective motives of information exchange, positive messages would primarily be conveyed over asynchronous media, since there is no further interaction required and communication would unnecessarily tie up additional resources. Negative instances, on the other hand, would lead to media choices with a high degree of richness and synchronicity, since they demand for clarification and resolution of the topic. However, our results indicate that people might tend to engage in rich and synchronous communication in cases of positive messages to fully experience its impact and refrain from its usage under negative circumstances in order to avoid negative experiences. Moreover, people seem to occasionally even disregard short-term negative experiences in order to preserve the long-term relationship with the receiver.

Second, our results show that the same psychological motives can lead to different media choices. While a common intention of media choice in negative situations is the intention to shield oneself from a negative reaction of the receiver and people mostly pursue this by using channels with a low degree of richness, there are also cases in which people act in a different manner. One participant, for example, intentionally chose a particularly rich communication channel, considering that this way, it should be even more difficult for the receiver to react in an overly "extreme" way. Another respondent chose text-messaging, a text-based channel we would consider quite lean, but did so because of the opportunity to use emojis for overly positive reactions. This indicates an "enrichment" of the channel through a specific method of use that is not reflected in our broad conception of richness. Such variances in behavior can stem from individual-dependent factors influencing perception of media, such as a person's confidence regarding communication via certain channels [2], their subjective CMC competence [39], or previous experiences [44] and socialization processes [45]. These individual traits have to be taken into account when considering variances in media choices beyond the situational factors and are the most probable explanation for why individuals act differently.

Third, it also became clear that the same media choices under similar circumstances can be an expression of different motives. For example, a major reason for people to establish an asynchronous interaction in cases of negative messages is the advantage of having time to rehearse and edit their messages beforehand. That is why they indicated a preference for email or instant messaging over channels such as the telephone. Others, who chose the same medium, however, brought forward the argument that this allows the receiver to take the time to process what he or she is confronted with. Of course, both reasons might play a role in the respective participants decision, but the fact that they answered how they did, suggests that one of them appears to be more relevant to these individuals in the given situation.

Fourth, there are the categories of pragmatic and symbolic reasons that are not fully represented in MRT or MST, nor our applied theoretical framework. Results indicate that they might interfere in the decision process at times, depending on how significant the present issue is perceived by the sender. On the one hand, in cases of low negative or positive valence, people do not enter a deliberate decision stage at all but automatically tend towards the medium that is most convenient for them in the given situation. On the other hand, when they are about to communicate over an issue that is expected to have a profound impact, they resort to socially appropriate ways of communication that match the seriousness of the situation. In these cases, there is no space for individual preferences, and the "right" media choice is predefined. This issue of socially acceptable behavior could raise the question for cultural differences that should be addressed in future research, since the present sample consisted solely of German-speaking participants.

All these notions taken from our data emphasize the value of qualitative analysis in media choice, since the underlying reasons for differences in behavior can be manifold. Thus, it is hard to predict such behavior generally, but on the other hand, it offers opportunities to design technologies in a way that enables users to establish the interaction they want (see Section 5.2.2 Implications for HCI practice and design). Focusing on the gratifications that users attain from control over the communication process appears to be one way to provide them with ways of communication that serve their individual needs and wellbeing in the long run.

5.1. Contribution to Previous Research

The present work provides a new theoretical perspective and qualitative insights into the underpinnings of media choice. We applied a framework based on previous works that dealt with the psychological motives that come into play in cases of socio-emotional communication and what reasons people act upon when they instrumentalize the effects of different media on communication. While other works mainly focused capacities of CMC to avoid reactions [31–33] or analyzed reported reasons for media choice rather inductively [34], we added to these works by also examining approach behaviors under negative circumstances and applying a theoretical perspective that links media characteristics,

i.e., richness and synchronicity, with their ability to establish control over the communication process. While Kayany, Wotring, and Forrest [4] examined media choices in less emotional and more instrumental terms such as persuasion and information gathering, there is a lot of correspondence between the reasons they reported and the categories we ended up with, which supports the validity of our results but also emphasizes the value of a control-based perspective on communication.

Beyond that, we integrated the distinction between self- and other-focus into our theoretical approach. Previous research also took receivers into account but only in terms of whether the other's goal is complementary or competitive to those of the sender [4]. Carlson and Davis [29] already elaborated on this critical factor by identifying several communication-partner related reasons for media choice that gain importance in situations of increasing interpersonal closeness between the actors. This matches our findings that people do not always choose among channels to their benefit but also decide in a way that these consequences serve the expected needs and motives of the receiver.

Beyond the control-oriented reasons incorporated into our theoretical framework, two additional categories of reasons emerged which we labeled pragmatic and symbolic reasons. A considerable proportion of participants handled messages in a way that could be described as rather pragmatic. Apparently, they did not perceive the incidents as a "big deal" and resorted to media that either were the most convenient or effective in delivering the message. This is congruent with the considerations of Carlson and Davis [29] that the initial intention that people follow when choosing communication channels is pragmatic and only if certain contextual factors come into play, e.g., socio-emotional relevance of the issue, other aspects gain importance in the decision.

On the other hand, the category of symbolic reasons, which were predominantly reported in the face of negative messages, stands in line with fields of media research that are characterized by a "symbolic interactionist" perspective [46]. According to this approach, communication media and their perception are socially constructed, so that the choice of medium is a message itself (e.g., how important the sender rates the issue). This results in a common understanding of which media are appropriate in certain situations, while a deviating choice leads to a violation of social norms. This symbolic role of communication media was also considered in what MRT calls the ability of a channel to establish a "personal focus" [19] or with "symbolism" in the impression management model [31]. Although the lack of cues of a medium might not always be detrimental to the communication [6,47], the right choice of channel holds a symbolic value that should not be disregarded.

The distinction between self- and other-focus illustrates another important insight that a motive-based perspective provides, namely that sender and receiver motives might not be compatible. For instance, while one might engage in asynchronous, text-based communication in the face of negative messages to shield oneself from negative reactions, the receiver would be deprived of their desire to experience the sender's authentic emotions first-hand. Thus, media choice can lead to situations in which contradictory needs have to be weighed against each other.

In socio-emotional contexts, this is particularly challenging since emotions serve as a means for providing social information that reduces uncertainty and negative interpretation biases [48,49], but people tend to be overconfident in how good they are at transmitting emotions via CMC [50,51]. However, communication media do not have to be a source of such conflicts but can be beneficial for the interpersonal exchange about socio-emotional issues, e.g., by lowering the psychological barrier to seek support after failing to meet others' expectations [52]. Therefore, possibilities to benefit from certain media characteristics without accompanying detrimental effects ought to be explored, including the rethinking of interactional norms [53], communication strategies [33,54], as well as communication media design.

5.2. Implications

The central goal of this study and its theoretical considerations was to add to the line of research on uses and gratifications by focusing on the capability of control through different technologies. A deeper understanding of the psychological motives that can explain why people use different communication

technologies and how they are expected to influence the interaction with each other contributes to the core objectives of HCI and provides implications to research and practice alike.

5.2.1. Implication for HCI Research

Apart from present study's limitations, which are outlined below, future research should be aimed at the integration of psychological motives within the decision process by relating them to media characteristics, social influences, and contextual constraints [55]. Previous research along with our present findings hint towards a hierarchical order of reasons for media choice in dependence of situational circumstances. In cases of low socio-emotional importance, people seem to tend towards pragmatical choices, choosing the first channel that comes in handy. However, as soon as emotional valence increases, people resort to more deliberate choices, weighing up the (dis-) advantages of available media and how they serve their own or others' motives. In highly emotional situations, though, it appears that symbolic reasons come into play, predefining socially appropriate and nonappropriate choices, and motive-based selection can be eventually "over-ruled". Of course, this hypothetical relationship has to be further investigated based upon concrete assessments of socio-emotional importance.

Moreover, the exact motives ought to be further investigated, since we were not able to scrutinize the statements according to underlying approach and avoidance motives. This could be pursued with more in-depth qualitative methods, e.g., via ladder interview techniques [56] or with quantified assessments by applying rating scales to measure the extent to which people avoid negative outcomes (i.e., losses and nongains) and approach positive outcomes (i.e., gains and nonlosses) in the respective situations. The same methodological approach would also contribute to a more specific assignment of reasons to the sending or receiving and self or other categories. While some freedom for individual elaboration is lost this way, participants could be asked distinctively how certain channels would affect their or the other's sending and receiving processes and which consequences are decisive for their choice.

The aforementioned symbolic choices circling around social acceptability also point towards another starting point for further inquiry, namely the psychological processes at the receiver's end. While we focused on the sender and what considerations take place before the actual interaction, the receiver in consequence is confronted with the medium the sender chose, although it might not be in accordance with his or her own current needs, causing a unilateral impairment of interaction experience. Moreover, the receiver is likely to conclude the sender's underlying intention from the channel he or she chose and react accordingly. Actually, reactive switching of communication channels is a frequently observed communication strategy, especially in highly emotional situations [1,57] that indicate an existing discrepancy between communicators' motives and illustrates the importance of understanding both sides and how technology corresponds to that.

The introduced framework can provide research with a tool to understand users' motives in CMC. Crucial motives can be uncovered by directing attention to questions such as: What aspects of communication does a user want to avoid and what to attain? Which for oneself and which for the receiver? Which of them concern the sending and which the receiving process of communication? How could media characteristics provide the user with control over these aspects? Some examples of how to address the answers to these questions in design are laid out in the following section.

5.2.2. Implications for HCI Practice and Design

Besides these research implications, the present study and its framework also provide starting points and critical considerations regarding application in HCI practice. We followed an approach where we started from a phenomenological perspective, that is, which channels people choose and what characteristics they carry, and concluded on the underlying motives they serve. In order to design a positive experience, one might follow this process the other way around. Practitioners could identify which psychological needs users might perceive in a specific context and provide them

with opportunities to act in accordance with those motives by tailoring technologies to the intended experience. For example, at this point in time, where more people than ever are forced to work from home due to a pandemic, the use of communication media becomes even more significant for individual wellbeing, and while efficient information transfer is undoubtedly important, socio-emotional aspects of communication cannot be neglected. Employers can support their employees with the possibility to fulfill their psychological needs by providing them with several tools that serve the control motives discussed here—or even design a single tool with options to customize communication according to present motives. By shifting the perspective away from functionalities towards pursued intentions, respective technologies could thus be adapted in a way that serves its user's needs and bolsters positive user experience, ideally without resulting in detrimental effects on the communication itself (e.g., facilitating misunderstandings, failed resolutions, or suppressing positive emotions).

To illustrate this, we can refer to a widely used instant messaging application, WhatsApp messenger, as an example of how a motive-based perspective can enrich the understanding of how people interact with communication media and what implications for their design can be derived. Our study revealed text-based communication as a frequently applied means for avoidance under negative circumstances since it provides the time to deliberately construct messages and edit them before transmission. However, there are two features that might contradict this motive, namely the visual display that the other is currently writing and a notification as soon as one has read a transmitted message. Both features can increase perceived time pressure, counter-acting the advantage one might pursue by using this medium. On the other hand, the application also provides a positive example for the reconciliation of two motives with its voice messaging feature since it gives users time to prepare their message while also employing the ability of speech to convey their current state through oral modulation, underlining their sincerity and evoking empathy in the receiver. However, as of today, it is not possible to prerecord messages and listen to them beforehand, a feature that could be recommended based on the consideration of user's motives. The prototype of KinChat, although developed with privacy concerns in mind, can be seen as another example of how such motives could be reconciled [58]. This messaging tool augments text messages with visualizations of the user's facial expression and head movement, and thereby allows the user to avoid direct exposure while sustaining some of the advantages of emotional display.

Another opportunity for the design of technologies lies in the simultaneous consideration of receivers' needs. For example, our results yielded the question of how two certain motives, one self- and one other-oriented, could both be addressed in the communication of positive messages. Some people appreciated the advantage of asynchronous communication media to capture their feelings in the heat of the moment and immediately transmit it, even if the other is currently not available, thereby somehow conserving the experience for the receiver. On the other hand, this deprives them of the other's reaction when receiving the content, missing out on what would have been a pleasant experience for themselves. Conversely, if they would wait for the other person to be available, the intensity of their initial reaction might fade in the meantime. Finding a solution for such problems can be a prolific endeavor for HCI practice. David [59], for instance, developed a prototype that processes text messages beforehand and mirrors the receiver's assumed reaction to the user. This might cause the sender to refrain from using text-based channels that might have detrimental effects on the communication outcomes (e.g., the message might be perceived even more negative) [60]. Reflecting a message's assumed impact on the receiver to the sender could help raise awareness for the other and, in turn, affect the sender's media choice. Once again, this illustrates how a motive-based perspective, especially one that considers both involved, can contribute to the development of technologies that reconcile several users' motives and nurture interaction.

Finally, while an intention to maintain control over the communication process might sometimes appear selfish, that does not mean that people actually intend to distance themselves from others. The desire to reduce emotionality and allow for a more deliberate choice of words regarding specific topics does not disentangle one from the basic human need for connection. Several innovative concepts

can be found in HCI research that help to establish relatedness between people that are connected through technology—but without a back-and-forth of words [61–63]. These might also serve as starting points in order to develop technologies that reconcile basic human needs with situationally active motives in CMC.

5.3. Limitations

The present study established an alternative approach to media choice by shedding light on underlying psychological motives in order to understand how people choose between different communication media. While this led to the emergence of several profound insights about the reasons for media choice, it is just one step further towards their integration into existing theoretical and empirical works.

First of all, we initially applied a theoretical framework derived from earlier research that guided our analysis. Although it proved to be a useful tool to structure and interpret the data, there is a chance that the taken perspective led to the nonconsideration of additional influencing factors and alternative interpretations, even though we considered previously not specified categories (i.e., pragmatic and symbolic reasons).

Furthermore, our framework builds on a broad conception of richness and synchronicity diverging from the multifaceted MRT and MST. For example, while MST's rehearsability and immediacy of feedback are represented in the interaction control sending and receiving category, respectively, reprocessability apart from the actual communication process is not covered. Similarly, MRT's multiple cues and natural language are not distinguished within our emotion control categories, and personal focus could have hinted towards our symbolic category beforehand. While we consider our user-centered understanding suited to design products, it might further benefit from the inclusion of these nuances from MRT and MST. Similarly, we did not link different channels with groups of reasons, which is why some universally applicable relations between specific reasons and certain channels might have been undiscovered.

Moreover, our research design aimed at the collection of a large amount of open answers from many different people in order to cover a wide range of possible reasons guiding media choice. However, the data consequently differed in width and depth depending on each participant's willingness to elaborate on their thought process. A follow-up study establishing in-depth interviews with fewer participants would allow for a more thorough inquiry and might provide a better picture on how people weigh different options against each other instead of only asking why they would choose the medium they did. Additionally, the rather young and predominantly female sample might yield questions concerning the generalizability of results.

Another limitation pertains to the use of vignettes in order to elicit reactions from the participants. For one thing, responses to such hypothetical scenarios always have to be handled with caution when making conclusions about actual behavior. Secondly, we deployed those vignettes with the intent to cover a wide spectrum of emotionally engaging message content and to provide instances participants could relate to. This came with a lack of certainty regarding conclusions about the relation between positive and negative incidents and associated reasons for media choice. More specifically, socio-emotional communication is far from manifold to expect that these descriptions could serve as a means to induce the entirety of motives that might emerge in everyday communication or account for the multifacetedness of emotions. Further research should include more controlled and pointedly variated vignettes and more nuanced emotions rather than an abstract distinction between positive and negative valence. For example, anger and fear are both emotions of the same valence but can influence judgements about the risk of future events in different ways, with anger relating to optimistic and fear to pessimistic risk perception [64]. By specifically addressing either anger or fear within separate vignettes, angry people might prefer channels that allow for direct confrontation because of their more optimistic expectations compared to people in the fear condition.

The same issue of vagueness pertains to the not specified receiver, though varying relationships [32] could affect how self-oriented senders choose their communication channels for negative messages. For example, in close relationships, people might choose channels with the intention to solve potential conflicts and preserve the relationship, while less close individuals would act under the short-term premise of simply preventing conflict [65]. Similarly, hierarchical status relations [29] might also play a role, such that people are more focused on positive impression management capabilities with their superiors and more concerned by the objective presentation of information with equal and lower status coworkers. Overall, these spaces for interpretation within the vignettes, as well as differences in participants' personalities, might provide an explanation for the lack of consistency in preferred media and given answers under similar circumstances.

Finally, the viability of the present framework as an inspiration for design still needs practical testing and validation. In this vein, it also has to be noted that even if technologies are designed in a way that could support a particular desired experience (e.g., socio-emotional communication), people might still act in contrast to the supposedly best way—either because they do not recognize which channel might be optimal for their purpose (and their receiver) or they are aware of it but refrain from it due to strategic reasons (e.g., rather accept an escalation of conflict than disclose face-threatening information). While the intentional "design for positive experience" is a first step, it also becomes clear that one can never directly design or guarantee a positive experience but only provide the (presumably) best basis for it. Still, people might also use technology other than intended and have other experiences than intended. However, people's creative appropriations of technology might also inspire new designs [66,67], and thereby add to an ongoing dialogue between design and insights from actual usage in everyday life.

6. Conclusions

The present research provides an alternative perspective on the underpinnings of media choice, especially for socio-emotional communication. We made the case for a motive-based approach that focuses on how people seek to instrumentalize media characteristics in order to influence communication processes in a deliberate way. While mere pragmatic considerations can still play a role in emotional situations and socially acceptable behaviors might narrow the amount of appropriate choices, there is substantial evidence that people use communication media to assert control over the interactional speed and emotional intensity of communication in order to approach pleasant and avoid unpleasant outcomes. The consideration of these psychological motives adds to existing research on how people interact with such technologies and points out opportunities for practical advancements in their design. After all, people are free to choose the way they want to communicate, but HCI research and practice can contribute to everyday communication by addressing their motives and foster positive user experience and wellbeing.

Supplementary Materials: The following are available online at http://www.mdpi.com/2414-4088/4/3/53/s1. Table S1: vignettes; Table S2: coding scheme.

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