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Getting warm(er) an investigation into linguistic relativity and its significance in the translation of the English lexical term "warm" into French

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GETTING WARM(ER)
AN INVESTIGATION INTO LINGUISTIC RELATIVITY AND ITS SIGNIFICANCE IN
THE TRANSLATION OF THE ENGLISH LEXICAL TERM “WARM” INTO FRENCH

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
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Master of Arts

in

The Department of French Studies

By
Elizabeth Neuerburg Addison
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Abstract

Students of foreign languages are well aware that every language has its own vocabulary and word-for-word translations are rarely valid. It is therefore unsurprising that identifying literal translations in French for the English lexical term “warm” is problematic. This study demonstrates that not only is there a variety of French lexical terms that can be used to convey the meaning that the English lexical term “warm” conveys, but that certain French lexical terms are more likely to be used only in certain situations. Furthermore, an examination of this phenomenon through the lens of linguistic relativity has revealed differing conceptualizations of temperature for native French versus native English speakers.

Linguistic relativity is the theory that one’s native language can actually affect the way one thinks about the world. In this study, the theory is examined from the points of view of various linguists and translators, including Whorf, Saussure, Wierzbicka, and others. Linguistic relativity is then applied to French and English speakers’ conceptualizations of temperature.

Both oral and written data is collected for this study; participants are both interviewed on tape and fill out a written questionnaire. Native French speakers are from various regions of France, Switzerland, Quebec, Africa, and South Louisiana. This study is limited to the adjectival and non-figurative use of the English lexical term “warm”.

The results of this study reveal that while there are many possible translation into French of the English lexical term “warm” depending on the situation and the speakers’ personal preferences and intents, certain French lexical terms are more likely to be used in particular situations. Based on the results of this study, the preferred French translations of the English lexical term “warm” are: *chaud* ‘hot’, *tiède* ‘lukewarm’, and *bon* ‘good’.

Due to their differing language systems, native French speakers and native English speakers classify temperatures differently, and in doing so, their experiences of temperature are interpreted differently. This difference in interpretation undoubtedly means that linguistic relativity is at play.

Chapter 1

Introduction

Warm: (a) 1. Having a fairly high temperature; affording or giving out a considerable degree of heat (less than that indicated by hot).

(Oxford Dictionary of English, 2003)

1.1 Motivation for Study

One cold winter evening in France, I went to a party at my friend's apartment. Upon entering, I wanted to tell her that her apartment was nice and warm, especially compared to the outdoors or to my own somewhat chilly apartment—but I found myself unable to do so. I couldn't figure out how to say "warm" in French. By chatting with the other guests, we realized that evening that there is no direct translation into French for the English adjective "warm". Given that I am usually cold, feeling warm—and being able to express it—is very important to me. Having been a student of foreign languages for many years, I had realized for some time that every language has its own vocabulary and that word-for-word translations are rarely valid. However, it was almost inconceivable to me that a language could not have a word for such an important—in my view—concept as "warm". In search of an expression for "warm", I embarked upon this study, firstly to verify that there indeed is no direct translation into French for the English lexical term "warm", and secondly to try to discover how the concept of "warm" would be expressed in the French language.

1.2 Topics Addressed in this Study

In the midst of this search for "warm", I was intrigued by the notion of linguistic relativity, the idea that one's native language can actually affect the way one thinks about the world, and I realized that this theory applied to the quandary at hand. The lexical term "warm" is in my native language, and my language shapes my worldview such that I feel a lexical term

identifying the concept is necessary. Thus, in Chapter 2, I examine the theory of and relevant research on linguistic relativity as well as how it can apply to the concept of “warm”.

In Chapter 3, I present how “warm” is translated into French. According to many French speakers, both participants in the study and other speakers to whom I spoke about my temperature dilemma, *chaud* ‘hot’¹ is one of the most common French translations of both English lexical terms “hot” and “warm”. Some respondents are adamant that the difference in English between “hot” and “warm”, if a difference exists at all, is negligible. However, according to the *Oxford Dictionary of English* (2003), “hot” and “warm” are completely distinct from one another, “hot” being more intense than “warm”. “Hot” is defined by the *Oxford Dictionary* as “...having or communicating much heat; of or at a high temperature: the opposite of *cold*. (Distinguished from *warm* by the degree of this quality.)” (2003: Vol. VII, 421). While the *Oxford Dictionary* also defines “warm” as a description of heat, “warm” is described as being slightly cooler than “hot”: “Having a fairly high temperature; affording or giving out a considerable degree of heat (less than that indicated by *hot*)” (2003: Vol. XIX, 914). These two lexical terms, “warm” and “hot” are not synonymous in English, but they are both often translated into French as *chaud* ‘hot’.

In Chapter 3, a variety of translations of the lexical term “warm” are provided by participants, and their translations vary greatly depending on context. However, the results of the study demonstrate that *chaud* ‘hot’, *tiède* ‘lukewarm’, and *bon* ‘good’ are the most common translations.

1.3 Data and Method

The participants in the study presented in Chapter 2 were native French speakers who also spoke English. They ranged in age from 20 years old to 60 years old. Of the 17

¹ All translations are my own unless otherwise specified.

participants, 8 were female and 9 were male. All the participants were asked where they grew up, in an effort to determine if the climate they were used to affected how they described temperature. They were from many different Francophone regions: 3 from northern France, 2 from southern France, 5 from mid-France (latitudinally), 3 from Québec, one from the Ivory Coast, one from the Congo, one from Switzerland, and one from Louisiana. However, region of origin was not found to be relevant.

The study was conducted in the form of an interview/questionnaire. (See Appendix C for participants' individual responses.) The interview portion was filmed and consisted of questions posed in English. These questions described scenarios in which the lexical term "warm" would be used in English, and participants were asked to describe the situation in French. The interview questions were asked in an informal, conversational style, and participants were instructed to say what they would say in casual speech.

Immediately following the interview portion, the participants were asked to fill out a questionnaire, which consisted of a series of short questions asking about opposites, descriptions, translations, and so forth. The questions specified whether the responses should be in French or in English. (See Appendix A for interview questions and Appendix B for questionnaire.) The participants were not informed of the topic of the study until after both the interview and the questionnaire had been completed, but some of them had an idea of the study's subject based on the nature of the questions.

Chapter 2

Linguistic Relativity and Its Relevance in Thermal Expressions in English and French

We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech community and is codified in the patterns of our language.

(Whorf [1940b], 213)

2.1 Introduction to the Linguistic Relativity Principle

Linguistic relativity is often debated, but it comes in so many forms and degrees of intensity that it can be hard to determine just what one is arguing for or against. Even Benjamin Lee Whorf, who is today considered one of if not the most prominent scholars in linguistic relativity (although it was named and elaborated on by later linguists rather than by Whorf himself) does not clarify whether the language system has an influence on or actually determines the conceptual system and culture. In the strong form of linguistic relativity, language structure fundamentally determines the structure of thought. Because in this view conceptual structure is the result of language structure, language can limit thought potential. The weaker form of linguistic relativity is a milder version of the same concept, basically that conceptual structure is influenced by language structure through unconscious habitual thought (Gumperz and Levinson 1996: 22), and it is this definition of linguistic relativity that is used in this study. In this chapter, I argue in support of linguistic relativity in its weaker form of language being an influence on rather than a determiner of thought. Firstly, through careful reading and much consideration of Whorf's writings, I argue that Whorf has an overall inclination towards linguistic relativity,

although he himself hardly uses this term in his writings.² The less absolute form of linguistic relativity as an influence on thought is both interesting and helpful when discussing the issue of the “disconnect” in meaning between two languages, which is the challenge, if not the bane, of the translator. Thus, after addressing Whorf on his own terms, I go on to focus on linguistic relativity between multiple languages from the points of view of certain linguists, including Whorf again, various translators, and Ferdinand de Saussure’s network.

2.2 Whorf and Linguistic Relativity

Whorf is often portrayed in other linguistic literature as a kind of “patron” or “father” of linguistic relativity; however, the theory of linguistic relativity, or the Sapir-Whorf hypothesis, was named and more fully developed by later linguists and not by Whorf himself. In this section of the chapter, I examine Whorf’s writings and find therein evidence and arguments that support linguistic relativity as it is defined above.

2.2.1 Using Language to Discuss Language: An Issue of Objectivity

When discussing linguistic relativity, one is faced first and foremost with the challenge of trying to remove oneself from the influences of one’s own language. Whorf argues, however, that in order to compare the ways in which different languages address, segment, or experience the same situation, one should first be able to analyze the situation in a way independent of any one language or linguistic type, in order to be neutral to all observers whose languages are being analyzed (1939b: 162). The difficulty with this approach is that the only way to access the linguistic or even the non-linguistic behavior of the situation being analyzed is verbally, through language itself. According to Whorf, “Whenever agreement or assent is arrived at in human affairs... THIS AGREEMENT IS REACHED BY LINGUISTIC PROCESSES, OR ELSE IT IS NOT REACHED” (emphasis original) (1940b: 212). The principle of linguistic processes being the sole

² Whorf does make reference to “the linguistic relativity principle” in his article “Linguistics as an Exact Science” (1940c: 221).

method of reaching agreement holds true as well for observers trying to analyze a linguistic situation or experience, because the only way to discuss the language is through language. This problem seems to be circular and without a solution, and in fact, the only possible resolution is for the observer or analyzer to be aware of their methods and the predispositions of their own language, and through their recognition, to counteract as much as possible the potential bias of their language and linguistic perception.

2.2.2 Linguistic Relativity in Whorf's Writings

Once one has accepted that one will necessarily be using language to address language, one can begin to concentrate on the theory of linguistic relativity. Whorf himself sums up the issue of linguistic relativity with two questions, which he attempts to answer throughout his writings:

(1) Are our own concepts of 'time,' 'space,' and 'matter' given in substantially the same form by experience to all men, or are they in part conditioned by the structure of particular languages? (2) Are there traceable affinities between (a) cultural and behavioral norms and (b) large-scale linguistic patterns? (1939a: 138)

If one looks past the possibly controversial issue of the first question offering an either-or choice rather than asking an open-ended question which could offer revealing answers not previously considered, Whorf is addressing more than just the idea that language structure influences thought structure. He is asking about influence of language firstly on concepts or thought and secondly on culture and behavior. Due examination of his writings yields a third aspect that language could influence which does not quite fit into those two categories: worldview. Thus, three categories are being addressed from the point of view of linguistic relativity: can and does language structure influence concepts or thought, worldview, and culture and behavior; and if so, to what extent?

The first aspect to be discussed with respect to its being influenced by language is the concept of thought formation. According to Whorf, formulation of ideas is not a process independent of one's particular grammar and strictly rational, but rather "differs, from slightly to greatly, between different grammars" (212-13). Whorf expresses that grammar, or language, does influence one's formation of ideas, but he acknowledges that the degree of difference is not the same for everyone. Speakers of different languages think and form thoughts differently because thought formation is not independent of language. While there may not be a big difference between languages, there is nonetheless a difference.

When Whorf describes the circumstances of specific incidents (one example is the case of the gasoline drums labeled "empty" and people's incautious behavior around these dangerous, fume-filled containers), he explains that the physical situation was not necessarily the only cause of the accident, "but the meaning of that situation to people, was sometimes a factor, through the behavior of people" (1939a: 135). Whorf makes it clear that the meaning of the situation, based on the way it was talked about and linguistically perceived, was sometimes a contributor to the accidental fires.

While Whorf acknowledges that the close relationship between language and behavior or between language and culture may not be universal, he explicitly explains that there are at times connections between cultural norms and linguistic patterns:

There are cases where the "fashions of speaking" are closely integrated with the whole general culture, whether or not this be universally true, and there are connections within this integration, between the kind of linguistic analyses employed and various behavioral reactions and also the shapes taken by various cultural developments. (1939a: 159)

Thus, linguistic patterns and behavioral and cultural patterns are not independent of one another. The way one speaks, one's linguistic analyses, can sometimes shape not only behavior but also aspects of culture. For instance, when comparing certain concepts between Western and Hopi

cultures, he states that the concept of “space” will vary between languages because it is so closely linked to the concepts of “time” and “matter”, all of which are linguistically conditioned (1939a: 158-159).

Whorf moves beyond the broader realms of cultures to the individual mental processes. He asserts that language can pattern not only one’s concepts, but one’s reasoning and even one’s consciousness.

Actually, thinking is most mysterious, and by far the greatest light upon it that we have is thrown by the study of language. This study shows that the forms of a person’s thoughts are controlled by inexorable laws of pattern of which he is unconscious. These patterns are the unperceived intricate systematizations of his own language...And every language is a vast pattern-system, different from others, in which are culturally ordained the forms and categories by which the personality not only communicates, but also analyzes nature, notices or neglects types of relationship and phenomena, channels his reasoning, and builds the house of his consciousness. (1941b: 252)

Whorf is clear that one may not even be aware of the influence that language has on one’s thought-system, but he maintains that there is indeed an influence of the language system which patterns the thought system.

Another example of Whorf’s views on linguistic relativity is also rather famous. In this quote, which is quite often cited in part or in entirety in other publications on linguistic relativity, Whorf states that a language’s grammar has its part in influencing the formulation of concepts.

...[T]he background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual’s mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade. Formulation of ideas is not an independent process, strictly rational in the old sense, but is part of a particular grammar, and differs, from slightly to greatly, between different grammars. We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic system in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech

community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, BUT ITS TERMS ARE ABSOLUTELY OBLIGATORY... (emphasis original) (1940b: 212-214).

Parts or all of this passage are frequently cited as the epitome of Whorf's philosophy, but more importantly here, it gives more than one example of linguistic relativity. The grammar of each language is "the shaper of ideas", and the kaleidoscope of impressions presented to us as we go through the world is organized "largely by the linguistic system in our minds". Moreover, this system of organization is not universal among languages but varies between different grammars; however, all members of each speech community follow the same terms of organization because they are thus directed by their language.

Furthermore, Whorf answers his own question as to whether concepts are given by experience to everyone or conditioned by the structure of a particular language.

Concepts of "time" and "matter" are not given in substantially the same form by experience to all men but depend upon the nature of the language or languages through the use of which they've been developed. They do not depend so much upon ANY ONE SYSTEM (eg., tense, or nouns) within the grammar as upon the ways of analyzing and reporting experience which have become fixed in the language as integrated "fashions of speaking"... (emphasis original) (1939a: 158)

From this passage, it is clear that to Whorf, the language influences the conceptual system because speakers use the language when they report and analyze their experience and the world. The influence of the language system is the result of the use of language to speak about the world.

In addition, Whorf also applies the principle of linguistic relativity when discussing worldview: the language system influences the view of the universe. This worldview differs from a conceptual system in that the conceptual system arranges thoughts and concepts, whereas the worldview is the arrangement of the sensory system with the conceptual system and the cultural system. Whorf explains that language is not merely a technique of expression, because language's first purpose is "a classification and arrangement of the stream of sensory experience

which results in a certain world-order” (1936a: 55). Different languages classify and arrange differently, build their sentences differently, break down nature differently into elements to put into those sentences and, thus, into different world-orders (1941a: 240). Therefore, like one’s conceptual system, one’s worldview is also at the mercy of the language system.

Whorf gives another explanation of how the language system or grammar influences one’s worldview in his definition of the linguistic relativity principle:

...[U]sers of markedly different grammars are pointed by their grammars toward different types of observations and different evaluations of externally similar acts of observation, and hence are not equivalent as observers but must arrive at somewhat different views of the world. (1940c: 221)

In the above definition, Whorf explains through straightforward cause-and-effect reasoning that different grammars yield different observations and evaluations, which in turn yield different worldviews.

While Whorf capably argues in the above examples that language has influenced both the conceptual system and the worldview, there is a further question as to whether language influences culture as well, or if the cultural system in fact influences the language system. According to Whorf, the language patterns and cultural norms have influenced each other, thus developing together. However, Whorf feels that language is stronger and more autocratic, being that it is an actual system, so it thereby becomes the stronger influence of the two (1939a: 156).

To what extent language can influence culture or thought will be discussed further in this chapter, with particular attention to issues of interlinguistic relativity and translation.

2.3 The “Meaning Gap” Between Languages

2.3.1 Asymmetry between Lexicons

According to Wierzbicka, who has done extensive research on languages and who is herself multilingual, bilingual and bicultural people all over the world have expressed the conviction that they lead a “double life” because the meanings they express in one language

differ from those expressed in the other (1992: 7). This feeling of a “double life” illustrates that in real life, outside the abstract realm of theory, there is a disconnect between languages—often words in one language do not have direct equivalents in another. Discussions with bilinguals have revealed that they often feel that they have to make a mental switch from one language and way of thinking to another before they can communicate with ease in the additional language. This mental switch indicates that different languages are not always reconcilable with the same thought system. Nonetheless, Wierzbicka also argues that the simple ideas on which human speech and thought are based are presumably the same for all people regardless of language or of culture (9). She is referring here to “semantic primitives” (10), “universal” words which are so basic as to be indefinable and which make up the building blocks of language. As for complex meanings, which are arranged into different words, they may differ from language to language because every language may have a separate word for different combinations of simple ideas. John Locke explains the differing complex meanings as being arranged by speakers’ minds and cultures.

A moderate skill in different languages will easily satisfy one of the truth of this, it being so obvious to observe great store of words in one language which have not any that answer them in another. Which plainly shows that those of one country, by their customs and manner of life, have found occasion to make several complex ideas, and given names to them, which others never collected into specific ideas. This could not have happened if these species were the steady workmanship of nature, and not collections made and abstracted by the mind, in order to naming [*sic*], and for the convenience of communication. (1959, v. 2: 48)

Locke reasons that some peoples or cultures have found a need for and developed a word for a particular complex idea, while other peoples or cultures did not have that need but a different need, and thus developed a different word. Words evolve in a speech community in direct response to their usefulness and usability in that community (Clark 1996: 341). Some languages may have more words in their lexical system, and others may simply have more sounds available

in their phonology, but obviously no language has created enough words to express all the nuances of human emotional and intellectual existence (Biguenet and Schulte 1989: xiii).

2.3.2 The Lexical Evolution

Speakers of a language are, of course, unconscious of the process of word evolution. They do not usually decide that there is a need for a word that encompasses certain specific concepts. Rather, the participants in the language and in the particular worldview are unaware of “the idiomatic nature of the channels in which their talking and thinking run, and are perfectly satisfied with them, regarding them as logical inevitables” (Whorf 1940c: 222).

Examples of this phenomenon of language suiting the needs of the language community are abundant. Whorf, for instance, explains that in Hopi, the phrase which would translate in English to “my ceiling” would probably not be used because there would not be an occasion for it. If an occasion were to arise, the phrase could be constructed in Hopi and understood by the Hopi addressee because of the category of noun in which “ceiling” is found; it is the same type of noun as “house” and can be used possessively. However, an expression formally equivalent to “my room” in English is also not necessary in Hopi, but furthermore, this possessive phrase does not and in fact could not exist because of the category of noun in which “room” is found. Even if a need for this complex idea were to develop and the Hopi should borrow the custom of having individual “own” rooms, they would still be unable to say “my room” in the same way that they can say “my house” in Hopi. Whorf suggests that they would probably instead coin a new expression to fill this need. One way they could do this would be to say “my ceiling”, “my door”, or “my floor”—all of which can be used possessively in Hopi in this manner—and over time, the word “ceiling”, “door”, or “floor” would come to acquire the extended meaning of an individual person’s own room, much like the French word *foyer* (‘hearth’) has come to mean “one’s home” (1940a: 201). This example illustrates not only Locke’s and Wierzbicka’s

argument that languages develop various complex word meanings due to a specific need for a specific meaning, but it also demonstrates Whorf's argument that language changes more slowly than culture (1939a: 156) because if there were a cultural need to be able to say "my room", the language would have to come to have the equivalent of such an expression.

Whorf's intended point is the conservatism of grammatical patterns and how they resist change more than lexical items (1940a: 201). Wierzbicka also concludes that the lexicon tends to change more quickly than the grammar of a language in response to changes in social reality, and she offers evidence as well (1992: 373). One illustrating example is that, unlike the Polish and French languages, English has a special word for "weekend" in addition to the separate lexemes "Saturday" and "Sunday". Polish, French, and probably other languages as well, have adopted the English word: in French, *le week-end*. Wierzbicka speculates that this disconnect may have something to do with the fact that until recently in Poland, people generally worked on Saturdays (374). Similarly, even today in France, there is school on Saturday mornings. If people work and attend class on Saturdays just as on every day from Monday to Friday, Saturday would have more in common with all the other weekdays than with Sunday, the day of rest. Thus, there would be no need for a separate word to designate "Saturday and Sunday as a unit". In this example, culture may be influencing language, but as Whorf acknowledges, there is a give-and-take between language and the culture as a whole (1939a: 147).

This example also illustrates the arbitrariness of Ferdinand de Saussure's signs. "Weekend" does make sense in English as the word refers to the end of the week, or perhaps more accurately, both "ends" of the week; Sunday is the beginning of the week in English, and Saturday is the end of the week. However, *le week-end* has no such derivational meaning in French because "week" in French is *la semaine* and "end" is *la fin*. Moreover, in French, while *le week-end* is Saturday and Sunday, it designates instead the last two days of the week; the

French week begins on Monday. A French speaker would, of course, have no problem understanding *le week-end* to mean “the weekend” because that is the word that is used in French. However, virtually the same word in both languages loses its derivational sense and also changes meaning when translated from English to French. Therefore, the word does not stand for a pre-existing concept.

2.3.3 Translation Challenges: Aligning Concepts with Words

According to Saussure, if words did stand for pre-existing concepts, they would then all have exact equivalents in meaning in different languages, but this is not the case (1913: 651). An exact equivalence from one language to the next will never be possible, neither on the level of concepts nor even on the level of individual words. Even within the same language, no two synonyms are exactly equivalent (Biguenet and Schulte 1989: xiii). Humboldt provides an imagery-evoking example using Sanskrit.

When, for example, in Sanskrit, the elephant is sometimes called the twice-drinker, otherwise the double-toothed one, otherwise still the one-provided-with-a-hand, many different concepts are designated, even though the same object is meant. For language does not represent objects but rather concepts which, in the process of speech, have been formed by the mind independent of those objects. (in Wierzbicka 1992: 5)

Thus, in Sanskrit as in any language, one must choose the most appropriate word for what one wishes to express. While not every language has so many different terms for an elephant, when one speaks, one essentially chooses the word or metaphor that one thinks, sometimes instinctively, best describes or conveys the meaning of what one wishes to communicate (Rabassa 1989: 5).

The situation becomes even more complex when multiple languages are considered. In translation, one must still make a choice—but in a different language and at a different level—as to what best describes what one is trying to say. Sometimes a single word in one language is faced with several possible translations in the next language (Rabassa 1989: 5). Anyone familiar

with, let alone fluent in, multiple languages has no trouble thinking of examples. In Wierzbicka's native language of Polish, there is no single word for "table". A coffee table would be called *stolik*, but a dining room table would be *stół*; both words are distinctly different from the English word "table". Also, there is more than one counterpart for the verb "to chase"; with *_ciga_*, there is an implication of an intention to move faster than the target, but for *goni_*, there is an implication of an intention to catch (1992: 6). In an example from another continent, the Eastern Aztecs in Central America do not have a single word for the side of the body because they distinguish between the thorax and the abdomen. Someone translating the Bible story into their language must then decide if Jesus was pierced between the ribs or below the ribs when he was pierced in the side³ (Wierzbicka 1992: 7-8).

There are examples beyond nouns and verbs. Jakobson points out that some languages discriminate between dual and plural, so when translating the English clause "she has brothers" to one of those languages, one must choose between "she has two brothers" and "she has more than two brothers". (He also offers the unwieldy option of "she has either two or more than two brothers", but perhaps that sounds better in the target language than it does in English.) Moreover, when translating into English from another language that does not have plural markers, one is obliged to choose "brother" or "brothers". (Likewise, he offers "she has either one or more brother", but while this may have accuracy in its favor, it is awkward in English) (1959: 148). Whorf discusses more examples at length, explaining that the Hopi language gets along perfectly without verb tenses (1936b: 64, 1938: 114). There are, of course, a myriad of examples in every language; the aforementioned are only a few.

³ John 19: 34

2.3.4 Experiencing Reality Through Language

Although they express themselves differently, as the above examples only begin to illustrate, nonetheless, all humans live in the same reality (while I do acknowledge that philosophers have long debated this issue, all humans at this time do at least live on the same planet). Humans have heads, hands, eyes, ears, a sky overhead, and the ground beneath their feet—but, as the disconnect between languages demonstrates, they do not think of these things in the same way. Humboldt points out that language reflects concepts rather than objects, and Wierzbicka states that language does not directly reflect the world but human interpretation of the world (Wierzbicka 1992: 5,7). Indeed, events and situations are not presented by the world to be encoded in language; rather, experiences are filtered *through* language into verbalized events (Slobin 1996: 75). As Whorf explains, it is possible to have geometries besides Euclidean give equally perfect accounts of space; therefore, it is also possible to have different but equally valid descriptions of the universe (1936b: 58). The influence of language thus permeates all other activities and can be recognized by its constant ways of arranging data and everyday analyses of phenomena (1939a: 135).

In this way, language, while it may not determine thought-processes, can certainly influence them. Lucy states that experiences are interpreted when certain aspects are arranged in the verbal code. Each language has, of course, a different interpretation. Language thus influences thought when the language interpretation “guides or supports cognitive activity and hence the beliefs and behaviors dependent on it” (2004: 3). While a language in this way guides the speaker to a particular interpretation or aspect of reality, it will not completely blind speakers to other aspects of reality, but it will provide speakers with a “systematic default bias in their habitual response tendencies” (2004: 18). Language can, thus, affect one’s thought-process, but there are different ways in which language can determine how one thinks.

Grammatical or lexical categories may, at the time of speaking, cause a specific way of thinking. According to Levelt's (1989) theory of speech production and Slobin's (1996) "thinking for speaking" theory, the thought-stream must be coded in language by matching pieces of conceptual structure with lexical specifications of meaning and aligning that conceptual structure with the semantic specifications of the lexicon. The situation may even be coded into specific forms at the time that it is experienced. For instance, the obligatory coding of number if there are plural markings in the language or the coding of honorifics based on relative age are language-specific distinctions that seem to require taking note of particular properties of the world so that one is prepared to encode them linguistically should there be a need (Lucy 1996). Slobin found that language can even cause memory effects in that it would be easier to remember certain aspects of events that had already been coded for speaking during prior verbalization (1996: 89). Through grammatical and lexical categories, by noting certain properties at the time of experience, and by remembering properties thus noted, thought can be affected by language.

This view of language is not without its ambiguities. It may be easier to accept some direct links of linguistic phenomena to non-linguistic aspects of culture as far as lexicon goes, but it is more complex with grammar. For instance, if a language such as Russian has three genders for common nouns, another such as French has two genders, and another such as English has none, then according to Wierzbicka, it would probably not be justifiable to link these differences with extra-linguistic differences in culture (1992: 373). As far as culture influencing language, she is probably not incorrect; however, the reverse may not be the case. Jakobson gives numerous examples of the grammatical gender influencing the mythological attitudes of a speech community. For instance, there is a widespread Russian superstition that a fallen knife portends a male guest and a fallen fork a female one. Jakobson maintains that this is determined

by the masculine gender of knife and the feminine of fork in the Russian language. Jakobson further describes how the Russian painter Repin could not figure out why Sin was depicted as a woman by German artists; “sin” is feminine in German but masculine in Russian. He goes on to tell of a Russian child reading a translation of German tales who was astounded to find that Death, feminine in Russian, was pictured as an old man in the story, “death” being masculine in German (1959: 149-150). Such superstitions and mythologies had to have grown and developed over time, thus the nouns—and their genders—must have preceded the attitudes about them. Jakobson gives many other examples as evidence of mythological attitudes—culture—being influenced by grammatical gender—language.

2.3.5 Expressing Infinite Meanings with Limited Lexicons

Despite the linguistic differences demonstrated by the above examples, the ideas and even the personifications of “sin”, “death”, and so forth are still comprehended in many languages. Language is a tool for expressing meaning, so meaning must be at least to some extent independent of language and even transferable from one language to another (Wierzbicka 1992: 3). As Humboldt states, “It is not too bold to contend that everything, from the most elevated to the most profound, from the most forceful to the most fragile, can be expressed in every language, even in the dialects of primitive cultures” (1816: 56). Likewise, Whorf asserts that the Hopi language, for instance, is capable of accounting for and describing all observable phenomena of the universe (1936b: 58). Wierzbicka agrees, but not unconditionally, stating:

...[T]here are good reasons to believe that every language has words available for the basic human concepts, and that everything that can be expressed at all can be expressed by combining those basic concepts in the right way. In this sense—but only in this sense—anything that can be said in one language can be translated, without a change of meaning, into other languages” (1992: 20).

Wierzbicka’s argument is based on the theory of semantic primitives, which she understands to be the universal words, the building blocks of language (10). If every language does indeed have

those most basic concepts, she argues that every other word or concept in language is derived from some combination of those concepts (or even a combination of concepts developed from other combinations of concepts). It then follows that if one decomposes every word down to its semantic primitives, it is possible to express anything by using those building blocks of language.

However, languages are composed of more than just those theoretical semantic primitives. Speakers do not communicate using only those building blocks; they communicate with their complex language system. Therefore, Wierzbicka also states, "...[T]he lexicons of different languages do indeed suggest different conceptual universes, and...not everything that can be said in one language can be said (without additions and subtractions) in another..." (1992: 20). This does not refute her previously quoted statement, but the parenthetical phrase is very important: anything that can be said in one language can be said in any other language, but not without some additions and subtractions in meaning. Because lexemes do not have direct equivalents within the same language let alone in other languages, whenever something is translated, it inevitably, however subtly, adds or loses some of its sense. Thus, not all concepts expressed through the words of one language are exactly the same as the ones expressed through the words of another (Schopenhauer 1800: 32).

Every language expresses a concept differently by placing the nuance slightly differently in each instance (Humboldt 1816: 55). This nuance separation causes a disconnect between the two languages. Whenever there is a disconnect, the terminology may be qualified or amplified by loan words, neologisms, semantic shifts, or circumlocutions (Jakobson 1959: 147). These necessary methods used in translation contain nuances not present in the target language and are not necessarily able to convey nuances present in the original. In some cases, it can even be argued that the more faithful a translation tries to be, the more it actually deviates from the

original, because in attempting to explain the refined distinctions of the original, more words are used, and each of the new words carries its own further nuances and associations (Humboldt 1816: 56).

A similar view is put forth by Riffaterre, a literary translator whose ideas I have applied to language as a whole. According to Riffaterre, an ideal act of translation into another language would be to maintain in the second language all the implications of the first, but he acknowledges that such an endeavor would be in vain (1985: 212). The difficulty with this ideal act is not only that the translator must find the key term with a productivity—which includes not only the literal meaning of the word but also all that it connotes and brings to mind—equal to that of the original, with the same meaning, but that he must define precisely what is at work in the original, what implications and associations are pertinent to the context at hand (208). In most cases, it is simply not possible to find a comparable intertext—that which is implicitly alluded to or presupposed, the productivity—in the target language, in which the language structure and context are bound to be totally different from those in the original language (212). Thus, the speaker must try to actualize the relevant parts of the system, recreating as much as possible the productivity of the original, choosing words that contain similar implications and meanings even if the result is not a literal translation (217). For Riffaterre, the meaning conveyed by an utterance or a passage is more important than the actual, literal words that are used, so the speaker should come as close as possible in meaning in the second language to what was meant or implied in the first, necessitating a certain amount of interpretation on the part of the translator.

Indeed, when a certain word cannot render exactly the same concept in another language, several words may be available that may all hit the meaning but that indicate different directions of meaning, different nuances (like Humboldt's elephant). All of these various similar words

together delineate the boundaries within which the concept occurs (Schopenhauer 1800: 32).

Schopenhauer argues that when one learns another language, one learns not only words but also concepts because in learning that foreign language, one has to map out several new spheres of concepts in one's own mind that did not necessarily exist before (33). When one realizes that the new words one learns do not quite match up with the meaning of the word in the language one knows already, then one designates a slightly different set of ideas as the new word, creating a new, slightly different concept. According to Schopenhauer, multilingualism increases one's flexibility of thinking because, through learning many languages, the concept increasingly separates itself from the word (34-35). The concept is not as confined to a focused, narrow understanding; the imaginary boundaries of the concept are more nebulous and can vary, allowing looser or broader interpretations of that concept.

2.3.6 Definition through Comparison and Opposition

According to Humboldt, a concept actually cannot even come into existence, let alone be grasped, without the word; however, a concept does not actually come from the word. Indeed, "the indeterminate force of a thought forms itself into a word just as soft clouds form out of a clear blue sky" (1816: 55). Despite the fact that Humboldt preceded Saussure by a few decades, his theory fits quite well into Saussure's philosophy. Moreover, Humboldt believed that the phonological aspect of language, together with the objects and ideas that the sounds or words represent, are "held suspended in a partially dissolved state as ideas that can define, separate, and recombine with one another in such a way as to defy all imaginable limitations" (57). This description sounds remarkably like Saussure's sign: a combination of the concept, the significant, and the sound-image, the signifier, which was formed from the vague and uncharted nebula of pre-linguistic thought (Saussure 1913: 649). Humboldt also seems to agree with

Schopenhauer in that the boundaries of the concept can be hazy and are constantly open to redefinition and reinterpretation.

Saussure himself does not seem to be averse to the idea that nuances constantly redefine the boundaries of a concept, for his writing states: “...*the characteristics of the unit blend with the unit itself*. In language, as in any semiological system, whatever distinguishes one sign from others constitutes it” (emphasis original) (653). Context, then, is all-important in comprehending the meaning of the word, for it is defined not only by the context in which it is used, but also by the context of all the other possible words—both like and unlike—that are not used to convey that meaning. Each time a word occurs, it takes on an expanded meaning generated by the contextual progression. In this way, words transcend dictionary definitions, and their effect can only be determined in their contextual environment (Biguenet and Schulte 1989: xi).

In order to express a word in another language, one must use a mode of thinking that allows one to explore the meaning associations within a word as well as the meaning connections between words created in the specific contexts in which they are used (Biguenet and Schulte 1989: xi). Thus, an infinite number of nuances, similarities, differences, and other relationships among objects rise to the level of consciousness, and one perceives multiple perspectives of all phenomena, which, for Schopenhauer, confirms that one thinks differently in every language, that one’s thinking is modified and newly tinged through the learning of each foreign language (1800: 34). To express oneself in another language, one must be continuously involved in experiencing and defining the dynamic boundaries of meaning and associations surrounding each word, both in one’s native language and in the target language. The process can be compared to drawing a visual image of each word that evolves into a painting, the outer edges of which can never be clearly defined as one word begins to flow into the colors of the next (Biguenet and Schulte 1989: xiii).

According to this theory, like a painting in which an image is comprised of shapes that are defined by the shapes around them, however indistinct the borders of each shape may be, a concept is only defined by its relation to other similar concepts. According to the writing of Saussure, "...initially the concept is nothing, that is only a value determined by its relations with other similar values, and that without them the signification would not exist" (1913: 651). Thus, sense or meaning is the direct result of the patterned relationships between the words or the morphemes. Whorf supports this idea, saying "It is not words mumbled, but RAPPORT between words, which enables them to work together at all to any semantic result" (emphasis original) (Whorf 1936c: 67). Language is a system of interdependent terms, which have value through their opposition. To draw on Saussure's example, if the French word *redouter* 'to dread' did not exist, all its content would go to other, closely-related words such as *craindre* 'to fear' and *avoir peur* 'to be afraid'. All words that are used to express related ideas limit each other reciprocally, thus the value of each term is the result of the simultaneous presence of the other related terms (Saussure 1913: 650-51).

Saussure stated that ideas are defined negatively, and "[t]heir most precise characteristic is in being what the others are not" (1913: 651). Within any language, the value of words lies in their opposition to each other (651). Whorf demonstrates this concept with an example of a hypothetical race that could only see the color blue. They would have no need for a name for the color blue if it was all they knew. In order to have a need to express the concept of "blue", there would have to be exceptional moments in which they saw other colors (Whorf 1940b: 209). Another more realistic example is that, for a person who has experienced life only on earth, with the earth's gravity, the law of gravitation is almost counter-intuitional. There are no exceptions in his experience in which something does not eventually come down. If everything behaves according to gravity; it is part of the background, so there is no point in defining such behavior

with a law. One cannot isolate something and formulate it into a rule until one encounters—or at least imagines (as Isaac Newton did in proving the law of gravity)—an interruption of its regularity (Whorf 1940b: 209).

In addition to ideas being expressed through their opposition to other ideas, ideas are also colored by the words that are used to express them. In actuality, every expression of an idea also transmits every nuance, whether it rises to the level of consciousness or not, of every word. This shading of meaning does not prevent any language from being able to express any concept, but it may result in some additional sense or may lack some nuances when compared to other languages. As Jakobson puts it, “Languages differ essentially in what they *must* convey and not in what they *may* convey” (1959: 149).

2.4 Linguistic Relativity Applied to Temperature

2.4.1 Describing Temperature in Opposition

There is a common belief that a word has an exact meaning, but as Whorf points out, and as this chapter has explained, this belief is mistaken (1941b: 258). Rather, words evoke systems of meaning, and a word must be defined relative to its schema or its system of meaning (Palmer 1996: 66). For example, the term “brother” cannot be understood apart from “sister” because both terms have the same values on the dimensions of generation and parental affiliation, and they differ only on the dimension of gender (67). Fillmore gives another example, asserting that “ground” and “land” are both used to describe a piece of earth, but “ground” is of the vertical schema because it is in contrast to “sky”, whereas “land” belongs to the horizontal schema because it is compared to “sea” (1984: 89). Both examples describe instances in which words have meaning only in comparison to their opposite.

It follows, then, that there is a thermal schema as well. “Hot” is in opposition to “cold”, and both of these—in fact, all descriptions of temperature—are defined in comparison to

something that is neither hot nor cold, nor warm, nor cool. This reference is not always fixed because it can vary somewhat from person to person depending on their personal range of comfortable temperatures. For instance, control of the thermostat led to many serious “room meetings” when I lived in a dorm. Furthermore, temperatures are often described relative to normal skin temperature or the temperature at which one is comfortable, i.e., one can say in English “warm to the touch”. They also vary depending on the subject being described, such as weather, food, and so forth: 98.6° F is the medical standard for normal human body temperature, but it is cooler than the usual temperature at which coffee is served.

On the color bar in Figure 2.1 below, a few fundamental English adjectives describing temperature are listed in order from coldest to hottest. As previously explained in this chapter, words are defined by what they are not as much as by what they are. Just as it is difficult to identify the exact point on the color bar that yellow changes to orange, so it is also difficult to identify a particular point at which something is no longer “warm” but “hot” or no longer “cool” but “warm”.⁴ However, “warm” describes temperatures that fall between “cool” and “hot”. Furthermore, all the temperatures listed below are in opposition to one another. “Cold” is the absence or lack of heat, “hot” is the opposite of “cold”, and so forth.

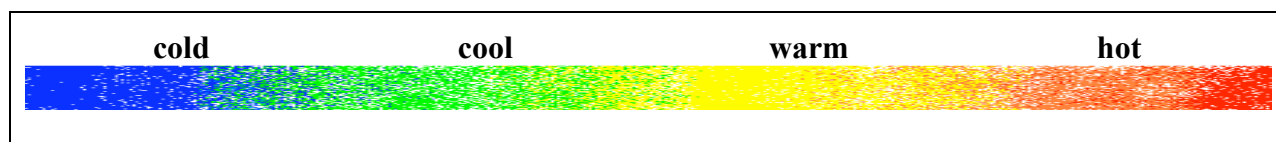


Figure 2.1 English Temperature/Color Spectrum

There are, of course, numerous adjectives that can describe temperature, and they can all be added in order to the list along the color bar, but for most English-speakers, “cold”, “cool”,

⁴ While in English, red, orange, and yellow are “warm” colors and green and blue are “cool” colors, this correspondence is not cross-linguistically universal. The intention behind Figure 2.1 is not to equate these adjectives with these colors but rather to compare the gradual transition between one color and the next with the transition between one temperature and the next.

“warm”, and “hot” are the most basic, “cold” being the opposite of “hot” and “cool” being the opposite of “warm”. Thus, in English at least, there exists a symmetry in temperature description.

2.4.2 The “Meaning Gap” of Temperature Descriptions

Despite all the discussion about the differences of concepts between languages, there are some things that do carry almost the same meaning cross-linguistically. However, as simplistic and fundamental as they seem to native English speakers, “hot”, “cold”, “warm”, “cool” and other descriptions of temperature are not included in that cross-linguistic category. The French and English systems of describing temperature, for example, are not equivalent or directly translatable. Some languages have a certain contrast—identifiable opposites—built into their system, and this particular contrast or comparison may be more readily noted in some languages than in others. Linguistic differences such as these can lead to cognitive and cultural differences as well. Schlesinger puts forth three conditions under which these differences occur:

1. The linguistic distinction in respect to which two languages differ is not an arbitrary one, but corresponds to the reality referred to.
2. This non-arbitrary connection is transparent to the ordinary speaker.
3. Speakers are ordinarily conscious of this connection (1991, 81).

Most non-figurative descriptions of temperature meet these criteria. Observations of thermal state would, of course, correspond to the reality to which they refer (Condition 1) by describing something’s degree of heat or lack thereof. The connection between words and the temperature being described is evident to the speaker (Condition 2) as it is a physical sensation being described, and speakers are aware of the connection (Condition 3) as their awareness of the sensation caused by the temperature leads to the description. Therefore, the linguistic differences between English and French in thermal expression may result in somewhat differing

interpretations of perceptions of temperature by experiencers who are native speakers of those languages.

The reality experienced by native French speakers and native English speakers is the same reality, but having experienced the same thermal sensations, speakers of the two languages encode them differently. As Whorf states,

We cut up and organize the spread and flow of events as we do, largely because, through our mother tongue, we are parties to an agreement to do so, not because nature itself is segmented in exactly that way for all to see. Languages differ not only in how they build their sentences but also in how they break down nature to secure the elements to up in those sentences. (1941a: 240)

Even as each color on the color bar [Figure 2.1] fades into the next, the adjectives describing temperature have nebulous boundaries as well, and the next chapter will describe how temperatures are categorized differently in the different languages.

2.4.3 Attitudes toward Temperature in French and English

The following study examines data from native French speakers of various nationalities as well as native American English speakers. In general, there are cultural differences between the French speakers and the American English speakers which can help to account for some of the different attitudes toward temperatures in different situations. For example, in France (and most of Europe, for that matter), beverages are not usually served cold; soda, juice, beer, water, and so forth are not refrigerated and only very rarely served with ice. In contrast, Americans tend to expect these beverages to be cold, and they often consider such drinks unappetizing when they are not cold enough. Iced beverages are not at all unusual for Americans, especially soda and water served at restaurants. Another instance of cultural difference is the attitude toward air conditioning during warm weather. For most Europeans and Quebecois, air conditioning is not common, especially in homes, whereas for Americans, air conditioning is often considered a necessity and is in nearly every home, business, and automobile. These cultural characteristics

must be taken into account in order to understand people's different attitudes toward temperatures in different situations.

Chapter 3

French Thermal Descriptors in Comparison to the English Thermal Descriptor “Warm”

3.1 How is “Warm” Expressed in French?

I propose in this study that there is not one particular word for “warm” in French, but this linguistic phenomenon does not mean that the concept does not exist. French speakers are just as able to express any concept as English speakers or speakers of any other language as they are perfectly able to feel warmth and to discuss warm sensations. Since there is no single direct translation, which lexical terms or expressions are then used to express the concept of “warm” in French? I further propose that there is not a variety of French lexical terms that can always be used to convey the meaning that the English lexical term “warm” conveys; rather, I shall attempt to identify certain French lexical terms that are more likely to be used only in certain situations. Through careful consideration of this hypothesis and the data gathered from the interviews with native French speakers, this chapter will investigate how the concept of warm is expressed in French.

3.2 Collection of Data

This segment of the study was conducted in the form of an interview/questionnaire. (See Appendices A and B.) The interview portion was filmed to allow the researcher to later review and refer to the oral data. The interview consisted of questions asked by the researcher in English, and the participants were instructed to respond in French. Immediately following the interview portion, the participants were asked to fill out a questionnaire, which consisted of a series of short questions asking about contrasts, descriptions, translations, and so forth. The questions specified whether the responses should be in French or English. Because there is a wide variety of different situations in which the lexical term “warm” may be used to describe

temperature in English, this method of interview/questionnaire allowed the researcher to gather data concerning many of those differing circumstances and conditions.

While questions in both the interview and the questionnaire were designed to elicit the lexical term “warm” in the response in English, the term “warm” was not actually used in the questions until the end of the interview and the questionnaire. For the most part, questions in both the interview and the questionnaire were deliberately not grouped by content so that participants would not anticipate a “desired” response. Questions and responses were later grouped into categories for analysis. (See Appendix A for the interview questions, Appendix B for the questionnaire, and Appendix C for participants’ responses.)⁵

Participants very often used multiple adjectives in response to the interview and questionnaire questions. Therefore, the number of responses usually adds up to more than the number of participants, which is 17.

3.3 Origin of Participants

The 17 participants were native French speakers from various francophone regions throughout the world. Data from the participants, their responses to the interview and questionnaire questions, were sorted to determine if the origin of the participant—i.e. where they came from or where they grew up, but not necessarily where they now reside—was important in how participants responded. The distribution of the participants’ origins is displayed in Figure 3.1 below. Of the 17 participants, 3 participants were from Northern France, 2 from Southern France, and 5 from Mid-France (latitudinally). Also, 3 participants were from Québec, and 2 participants were from francophone countries of Africa (one from the Ivory Coast and the other from the Congo). One was from Switzerland, and one participant was from Louisiana. For all

⁵ The numbering of the questions within the text of this chapter does not correspond to the numbering of the questions in the interview or in the questionnaire found in the appendices. The interview and the questionnaire in the appendices show the actual order in which the questions were asked during the collection of data. Within the chapter, the questions are grouped into categories and are then numbered consecutively.

participants, French was their first language or one of their first languages. All the participants in this study were also English speakers, which was essential to their understanding the interview and the questionnaire.

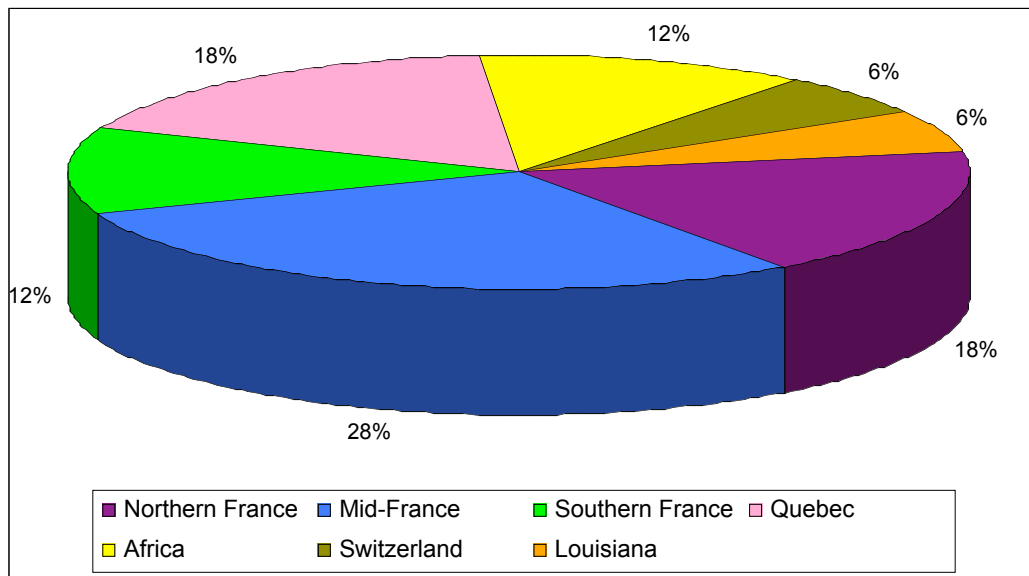


Figure 3.1 Percentages of Participant Origin

Participants' responses to interview and questionnaire questions were examined according to origin. However, for the most part, their responses did not vary according to region, so origin was not found to be an important factor in this study.

3.4 Presentation of Data

In reviewing and analyzing the data gathered in the interviews and questionnaires, the information was grouped into certain categories or domains. Some of these domains deal with the physical sensation of warmth, and some have to do with the sensation of warmth due to comparison with coolness, coldness, or even heat. Other domains include, among others, the linguistically-oriented categories of opposites or of translations between French and English (or vice-versa). While some of these categories were anticipated by the researcher, i.e.

“Temperature Opposites” or “Ambient Weather Temperature”, others became clear during analysis, such as “Edible Liquids” or “Related to Body Temperature”. The data have been arranged into these categories for comparison and analysis and are presented in the following sections in both table and graph forms. The tables display the data for comparison between questions throughout each category, and the graphs display the data for comparison of responses to individual questions. As previously explained in Section 3.2, participants often gave responses with multiple descriptors; thus, the number of responses varies and is often higher than 17, the number of participants. (See Appendix C for participants’ individual responses.) If only one participant used a descriptor in response to a given question, that descriptor is placed in the “other” category.

3.5 Weather and Indoor Temperature

Participants were asked about both indoor and outdoor situations to determine if different adjectives are used to describe warm temperatures indoors as opposed to warm temperatures outdoors. They were also asked about warm temperatures in contrast to cold temperatures as well as pleasantly warm ambient weather temperatures to determine if an immediate contrast affected their choice of adjective.

3.5.1 Contrasting Ambient Temperatures

Two of the interview questions concern participants’ perceptions of contrasting ambient temperatures, moving from someplace cold to someplace with heat.

- (1) Suppose it’s wintertime and you were walking to a party at someone’s house. It’s a very cold night—you can see your breath and the wind is blowing, and you had to park a block or two away. Then you finally get to the house where the party is, and you go inside where the heater is on and there are a bunch of people in there. What would you say when you get inside to describe the temperature inside?
- (2) If you were camping in the late fall, how would you express in French that it is warm by the fire but cold in the tent?

The number of participant responses to the questions about contrasting ambient temperature are sorted by adjective and provided in Table 3.1 below.

Table 3.1 Contrasting Ambient Temperatures

	<i>bon</i> ‘good’	<i>chaud</i> ‘hot’	<i>bien</i> ‘well’	<i>meilleur</i> ‘better’	other
Warm indoors (vs. cold outdoors)	10	8	1	1	0
Warm by the fire (vs. cold in the tent)	9	7	3	1	1

The “other” response expressing being warm by the fire (given by only one participant) was *pouvoir aider à revigorer* ‘to be able to help reinvigorate’. As Table 3.1 shows, *bon* ‘good’ and *chaud* ‘hot’ are used by most of the participants to describe a warm ambient temperature in contrast to a cold ambient temperature. The results are also displayed in Figure 3.2 and Figure 3.3 below.

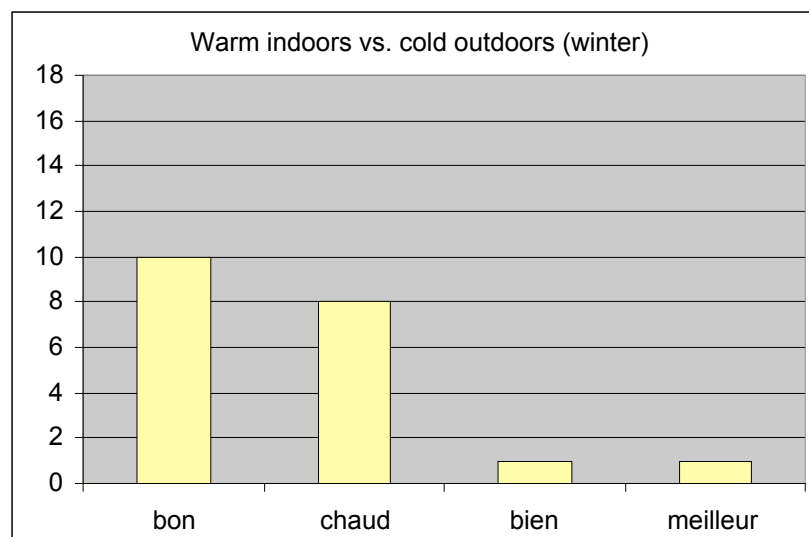


Figure 3.2 Contrast of Warm Indoors and Cold Outdoors

Question (1) asks participants to describe in French the temperature indoors when they have just come from the freezing cold outdoors during winter. As Figure 3.2 shows, 10 of the 17 participants used the lexical term *bon* ‘good’ to describe this situation, and 8 of the 17 participants used the lexical term *chaud* ‘hot’. Only one participant used *bien* ‘well’ and one participant used *meilleur* ‘better’ in this situation.

A majority of the participants, 58.8%, used *bon* ‘good’, and slightly less than half of the participants, 47.1%, used *chaud* ‘hot’ to describe this situation. Thus, *bon* ‘good’ and *chaud* ‘hot’ are likely to be used, but *bon* ‘good’ is preferred to describe warmth indoors when it is cold outdoors.

Question (2) asks participants to describe a situation in which it is cold in the tent but warm by the fire. As Figure 3.3 shows, 9 of the 17 participants used the lexical term *bon* ‘good’ to describe how it is near the fire, and 7 participants used the lexical term *chaud* ‘hot’. 3 of the 17 participants used *bien* ‘well’, and only one participant used *meilleur* ‘better’ or another descriptor.

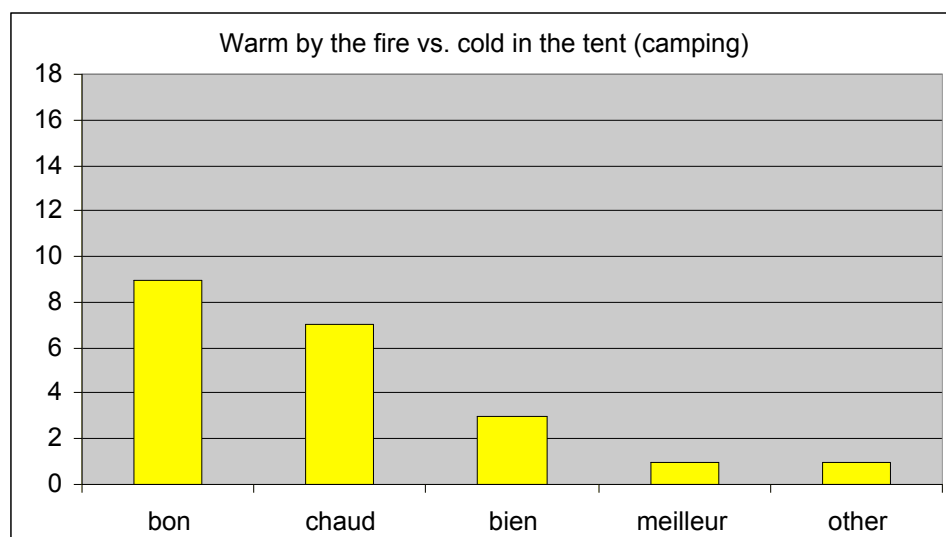


Figure 3.3 Contrast of Warm by a Fire and Cold in the Tent

Just over half the participants, 52.9%, used *bon* ‘good’, and 41.2% used *chaud* ‘hot’ to describe the temperature near the fire. 17.6% used *bien* ‘well’, and only one participant each used *meilleur* ‘well’ and another descriptor. Again, *bon* ‘good’ and *chaud* ‘hot’ are likely to be used to describe the warmth near a fire, but *bon* ‘good’ is the preferred adjective.

In situations of contrasting ambient temperature, describing somewhere warm compared to somewhere cold, the most common descriptive lexical term is *bon* ‘good’ followed closely by *chaud* ‘hot’.

3.5.2 Ambient Weather Temperature

Another interview question concerned participants’ perceptions of weather temperature and how they would describe warm outdoor temperatures. They were asked about different types of warm weather (i.e. sunny, cloudy, humid) to determine if the type of weather affected their choice of adjectives. They were asked about all three types of weather with the stipulation that the temperature remained the same in order to determine if the lexical terms they used to describe the temperature would change with the type of weather.

(3a) If you were outside on a late spring or early summer day, and the sun was shining, and a gentle breeze was blowing, and it was perfect short-sleeves weather—it isn’t hot but there’s not a bit of chill in the air—how would you describe the temperature and the weather?

(3b) What if it was the same temperature but it was very cloudy and gray?

(3c) What if it was very humid?

Participants’ responses are sorted by question and by adjective. The numbers of responses using each adjective are displayed in Table 3.2 below. The responses vary considerably not just between questions but also within each question. There is considerable divergence in responses describing each type of weather.

The descriptions which are grouped in the “other” category were provided by only one participant each. The “other” responses describing the sunny day include *tempéré* ‘temperate’ and *l’été indien* ‘Indian summer’. To describe the cloudy, gray day, the “other” responses are *moche* ‘ugly’ and *frais* ‘cool’.

Table 3.2 Ambient Weather Temperature

Late spring/early summer day...	<i>bon</i> ‘good’	<i>agréable</i> agree-able	<i>beau</i> ‘nice’	<i>bien</i> ‘well’	<i>ni/pas (trop) chaud, ni/pas (trop) froid</i> ‘not (too) hot nor (too) cold’	<i>doux</i> ‘mild’	<i>pas beau/désagréable/pas idéal</i> ‘not nice/disagreeable/not ideal’	<i>chaud</i> ‘hot’	<i>tiède</i> ‘luke-warm’	<i>parfait/idéal</i> ‘perfect/ideal’	<i>nuageux/couvert/gris/sombre</i> ‘cloudy/overcast/gray/dark’	<i>triste</i> ‘sad’	<i>humide/collant</i> ‘humid/sticky’	<i>lourd/pesant</i> ‘heavy’	other
...not hot, not chilly, but sunny	10	3	3	2	2	1	0	0	1	4	0	0	0	0	2
...same temperature, but cloudy and gray	8	1	0	0	0	1	2	0	1	0	9	2	0	0	2
...same temperature, but very humid	6	0	1	0	1	0	2	1	0	0	0	0	15	7	0

Once again, *bon* ‘good’ is the most commonly used descriptor overall to describe a warm day. However, some descriptor of cloudiness (*nuageux* ‘cloudy’, *couvert* ‘overcast’, *gris* ‘gray’, etc) is the most common response to describe a warm cloudy day, and some descriptor of humidity (*humide* ‘humid’, *collant* ‘sticky’) is used to describe a warm humid day. These descriptors of cloudiness and humidity are used to acknowledge the most obvious aspect of the weather, but they are often used in conjunction with some descriptor of temperature as well. The figures shown in Table 3.2 are also displayed in graph form below.

Due to the fact that the questions concern different types of weather, despite asking about the same temperature, many of the adjectives do not overlap between questions. For instance,

triste ‘sad’ is only used to describe a cloudy day, *lourd* ‘heavy’ or *pesant* ‘heavy’ are only used in describing a warm and humid day, *parfait* ‘perfect’ or *idéal* ‘ideal’ are only used to describe a nice and sunny day, and so forth.

The responses to Question (3a), the nice and sunny day that is not hot but not chilly, are provided in Figure 3.4. 10 of the 17 participants used *bon* ‘good’ to describe the weather and temperature on a beautiful sunny day. 3 participants each used *agréable* ‘agreeable’ and *beau* ‘nice’ to describe the sunny day. 2 participants each used *bien* ‘well’, *ni chaud ni froid* ‘neither hot nor cold’, *parfait* ‘perfect’, and *idéal* ‘ideal’, and 4 participants used a different descriptor.

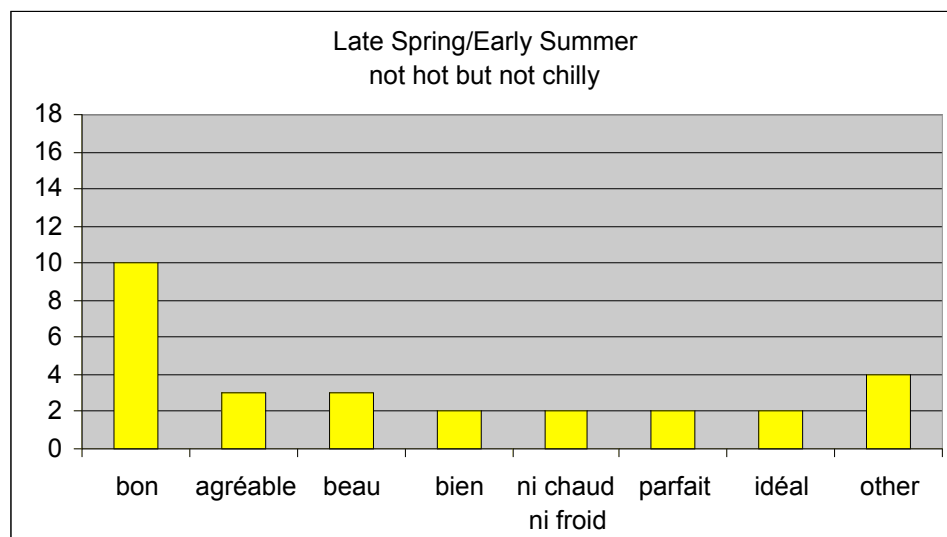


Figure 3.4 Sunny Day with Nice Temperature

The only lexical term that a significant amount of participants, 58.8%, used was *bon*. A small minority, 17.6%, used the lexical term *agréable* ‘agreeable’ and the same number provided the lexical term *beau* ‘nice’; even fewer participants used other lexical terms. The preferred lexical term used to describe a nice, sunny day is *bon* ‘good’.

The responses to Question (3b), asking participants to describe a very cloudy and gray day with the exact same temperature as the sunny day, are displayed in Figure 3.5. While many

of the lexical terms participants used to describe such a day do not seem to pertain to temperature, these are the responses given. For example, 8 of the 17 participants used the lexical term *bon* ‘good’ to describe such a day. 4 of the participants used *nuageux* ‘cloudy’ in their response, despite being asked to describe temperature specifically. 2 participants each used the lexical terms *gris* ‘gray’, *couvert* ‘overcast’, *triste* ‘sad’, and *pas beau* ‘not nice’, and 6 participants used another descriptor.

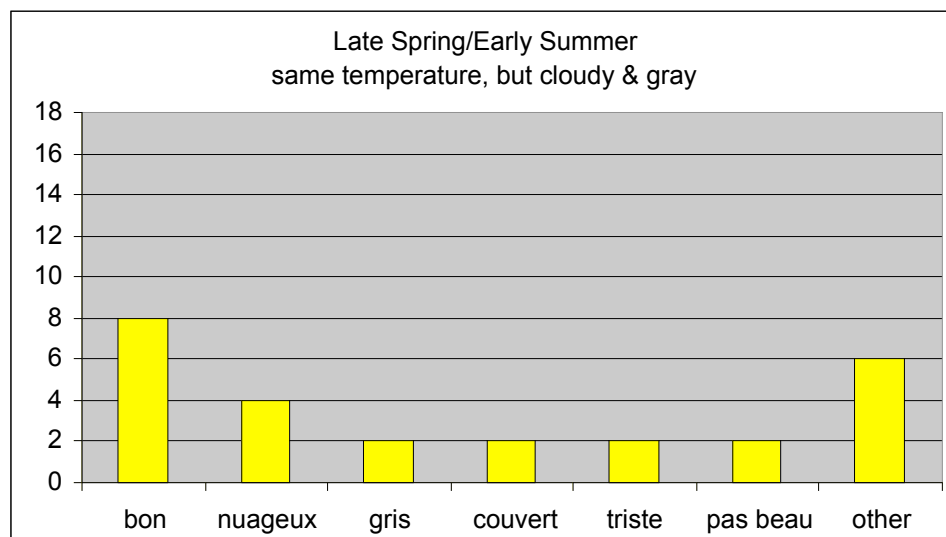


Figure 3.5 Cloudy Day with Nice Temperature

Again, the only lexical term that a significant number of participants, 47.1%, used was *bon* ‘good’. Just under a quarter of the participants, 23.5%, used the lexical term *nuageux* ‘cloudy’, and even fewer used other lexical terms. While fewer than half the participants used *bon* ‘good’ to describe a cloudy, gray day with perfect temperature, *bon* ‘good’ is still preferred over other descriptors.

In Question (3c), participants were asked to describe a day with the same perfect temperature as before but very humid. Many participants showed resistance to this question, objecting that they could not imagine a humid day with perfect temperature, but they all did their

best to respond, and the results are displayed in Figure 3.6. In this case, a minority of the participants, 6 of the 17, responded with *bon* ‘good’; however, 13 participants used the lexical term *humide* ‘humid’ to describe the weather. 5 participants used *lourd* ‘heavy’, and two participants each responded with *collant* ‘sticky’ and *pesant* ‘heavy’. 5 participants used another descriptor.

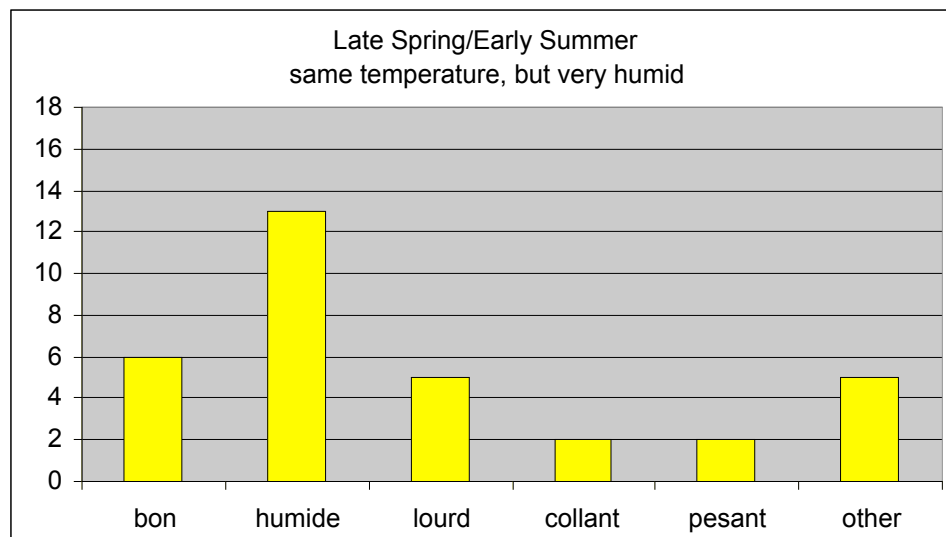


Figure 3.6 Humid Day with Nice Temperature

To describe a humid day that nonetheless has nice temperature, just over a third of the participants, 35.3%, used the lexical term *bon* ‘good’; however, the majority of participants, 76.5%, chose to use the lexical term *humide* ‘humid’. Meanwhile, over a quarter of participants, 29.4%, described the day as *lourd* ‘heavy’, and fewer participants used other descriptors.

3.6 Eating and Drinking Liquids

Participants were asked to describe the temperature of beverages and soup in certain circumstances to determine if they would choose different adjectives to describe liquids that should be cold but had warmed as opposed to liquids that should be hot but had cooled.

- (4) If you wanted a nice, cold drink (juice, soda, beer, milk, white wine, etc.), but it had been left out on the counter and was no longer cold, how would you describe the temperature of the beverage?
- (5) When you were little and your mom gave you a bowl of soup at the table, she would tell you not to eat it right away or it would burn your mouth. After waiting a few minutes, what would you say to describe the soup's temperature when it was ready to eat?

Question (4) required some explanation during the interview because, as explained in Section 2.4.3 of the previous chapter, many Europeans do not refrigerate drinks or serve them with ice. Some participants clarified that their response only applied to juice or milk or white wine. However, all participants were able to respond to the question. The descriptions given in response to both of the above questions are displayed in Table 3.3 below.

Table 3.3 Eating and Drinking Liquids

	<i>tiède</i> 'luke-warm'	<i>chaud</i> 'hot'	<i>à une temp. ambiante</i> 'at an ambient temp.'	<i>pas frais</i> 'not cool'	<i>réchauffé</i> 'reheated'	<i>ça va</i> 'okay'	<i>prêt/pouvoir manger</i> 'ready/able to be eaten'	<i>ne plus/pas trop chaud</i> 'not any longer/not too hot'	<i>bon/à la bonne temp.</i> 'good/at the good temp.'	<i>a refroidi/ne va pas me brûler</i> 'has cooled/is not going to burn me'	<i>moins chaud</i> 'less hot'	other
"cool drink" that has warmed to room temp.	8	2	4	6	2	0	0	0	0	0	0	1
"ready to eat" temp. of soup	3	2	0	0	0	5	3	5	5	3	2	3

Clearly, responses to these questions vary considerably. A drink that is no longer cold is often described as *tiède* 'lukewarm' or *pas frais* 'not cool/not fresh', whereas the temperature of a soup that is no longer hot is often expressed as *ça va/à la bonne température* 'okay/at the good temperature' or *ne plus trop chaud/ne pas trop chaud* 'no longer too hot/not too hot'.

The “other” responses were used by only one participant each. The “other” response describing the cool drink that had warmed to room temperature is *frais* ‘cool’. The “other” responses describing the soup that had cooled from extremely hot are *encore chaud* ‘still hot’, *tout juste/parfait* ‘just right/perfect’, and *pas tiède* ‘not lukewarm’. This last response was given by a participant who also used *pas chaud* ‘not hot’ and *à la bonne température* ‘at the good temperature’ to describe the soup. The results displayed in Table 3.3 are also displayed in graph form below.

There is less variety among responses to Question (4), describing a cold drink that has warmed to room temperature, than to the question about soup that has cooled. As can be seen in Figure 3.7, 8 of the 17 participants responded with the lexical term *tiède* ‘lukewarm’. 6 of the participants described a cold drink that was no longer cool as *pas frais* ‘not cool/fresh’. 4 participants described the drink as *à une température ambiante* ‘at an ambient temperature’, and 2 participants each said it was *réchauffé* ‘reheated’ or *chaud* ‘hot’. One participant used another descriptor.

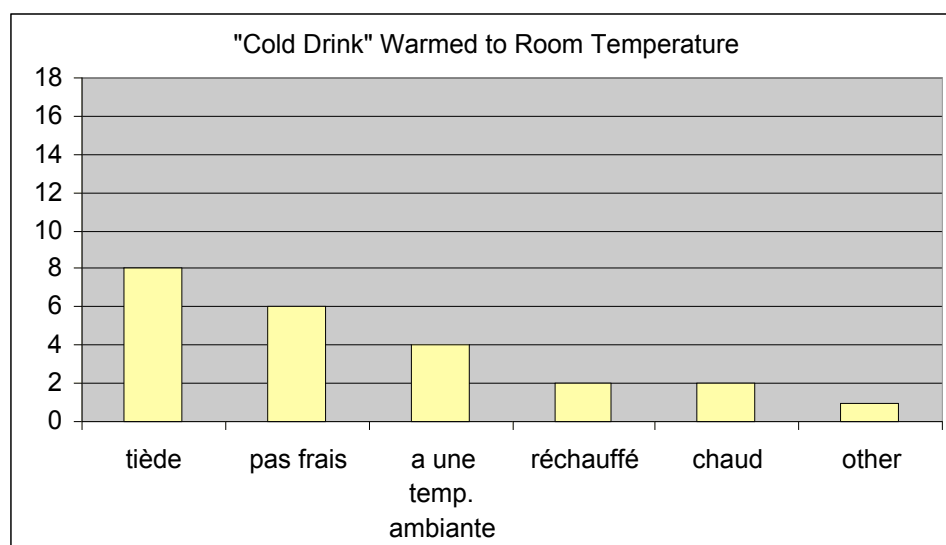


Figure 3.7 Formerly Cold Drink

In describing a formerly cold drink that had warmed to room temperature, just under half the participants, 47.1%, used the lexical term *tiède* ‘lukewarm’. Just over a third of participants, 35.3%, described the drink as *pas frais* ‘not cool/fresh’, and less than a quarter of participants, 23.5%, said it was *à une température ambiante* ‘at an ambient temperature’. While no response was used by a majority of the participants, *tiède* ‘lukewarm’ seems to be the preferred descriptor, followed by *pas frais* ‘not cool/ fresh’.

There were many responses to Question (5) about soup that had been extremely hot but that had cooled until it was at an appropriate temperature to eat. None of the responses were used by a majority of participants, so the answers showed great variation, as can be seen in Figure 3.8 below.

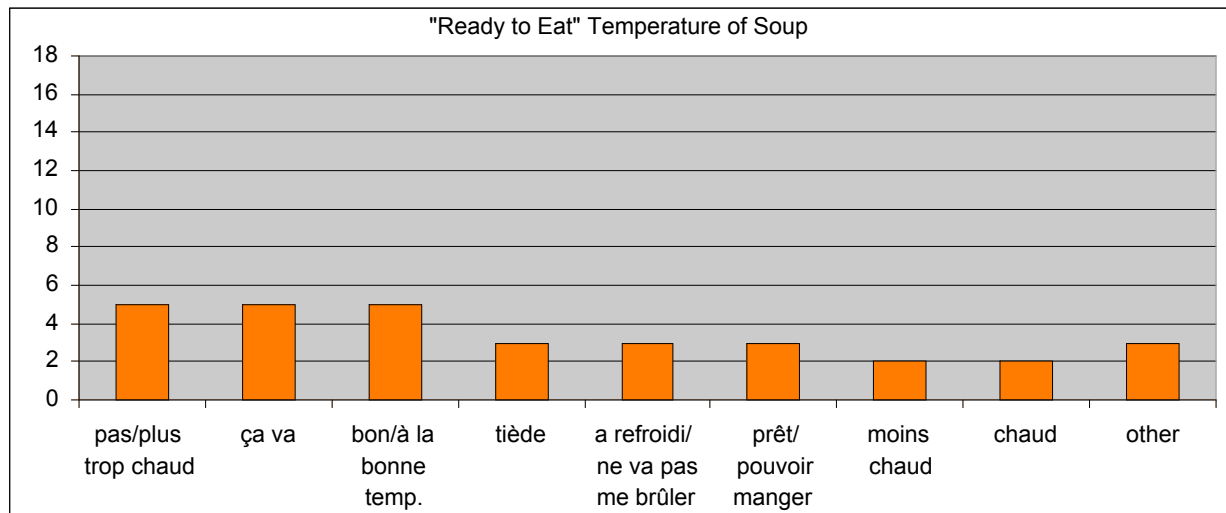


Figure 3.8 Formerly Hot Soup

5 of the 17 participants described the soup as *ne pas trop chaud* ‘not too hot’ or *ne plus trop chaud* ‘no longer too hot’. 5 participants described the soup as *ça va* ‘okay’, and 5 participants said it was *bon* ‘good’ or *à la bonne température* ‘at the good temperature’. 3

participants used *tiède* ‘lukewarm’, 3 used *a refroidi* ‘has cooled’ or *ne va pas me brûler* ‘is not going to burn me’, and 3 used *prête* ‘ready’ or *peut manger* ‘can be eaten’. 2 participants each used the lexical terms *chaud* ‘hot’ and *moins chaud* ‘less hot’. 3 participants used another descriptor.

In describing the “ready to eat” temperature of soup, a little over a quarter, 29.4%, of participants used the description *pas/plus trop chaud* ‘not/no longer too hot’, and another 29.4% of participants used the lexical term *ça va* ‘okay’. Also, *bon* ‘good’ or *à la bonne température* ‘at the good temperature’ were also used by 29.4% of participants. The participants responded with such a variety of descriptors that there is no majority and no preferred adjective in this category.

3.7 Washing and Bathing Liquids

Participants were asked to describe the temperature of the water they would wash dishes in as well as the temperature of the water they would use to wash themselves in the bath or shower. Based on her own experience, the interviewer expected most participants to describe hot water in these situations. The participants were also asked to describe the water they would use to bathe a baby, and those responses were expected to describe warm water because a baby’s bathwater would usually be less hot than an adult’s bathwater.

- (6) How would you describe the temperature of the water you wash dishes in?
- (7) How would you describe the temperature of bath water or the water in the shower?
- (8) Suppose you were going to give a baby a bath. You don’t want the temperature of the bathwater to be too hot. How would you describe the appropriate temperature of the bathwater?

Questions (6) and (7) were designed for the explicit purpose of eliciting responses contrasting with the responses to Question (8) because water for washing dishes and their own bath and shower water was expected by the researcher to be described with adjectives conveying

a higher intensity of heat than the adjectives used to describe a baby's bathwater. The descriptions given in response to the above questions are provided in Table 3.4 below.

Table 3.4 Liquids for Washing

	<i>chaude</i> 'hot'	<i>tiède</i> 'lukewarm'	<i>bonne/ à la bonne température</i> 'good / at the good temperature'	<i>ni trop chaude ni trop froid</i> 'neither too hot nor too cold'	<i>entre tiède et chaude</i> 'between lukewarm and hot'	other
Dish-washing water	13	4	1	0	0	0
Own bath/shower water	7	4	5	0	0	1
Baby's bathwater	0	9	4	4	2	5

As can be seen from Table 3.4, *chaud* 'hot' is the most common lexical term used to describe the water for washing dishes, but participants' descriptions of their own bath or shower water show much more variety. A baby's bathwater is most often described as *tiède* 'lukewarm', but there is considerable variation nonetheless. The "other" category consists of descriptions each given by only one participant. The "other" description of bath and shower water for an adult is *bouillante* 'boiling'. The "other" descriptions of a baby's bathwater are *pas trop chaude* 'not too hot', *à point* 'at point', *idéale* 'ideal', *une température ambiante* 'an ambient temperature', and *tempérée* 'temperate'.

In Question (6), participants were asked to describe the temperature of the water in which they wash dishes. As Figure 3.9 shows, there is not a great deal of variation among the responses. 13 of the 17 participants described their dishwater as *chaude* 'hot'. 4 of the participants described it as *tiède* 'lukewarm', and one participant described it as *à la bonne température* 'at the good temperature'.

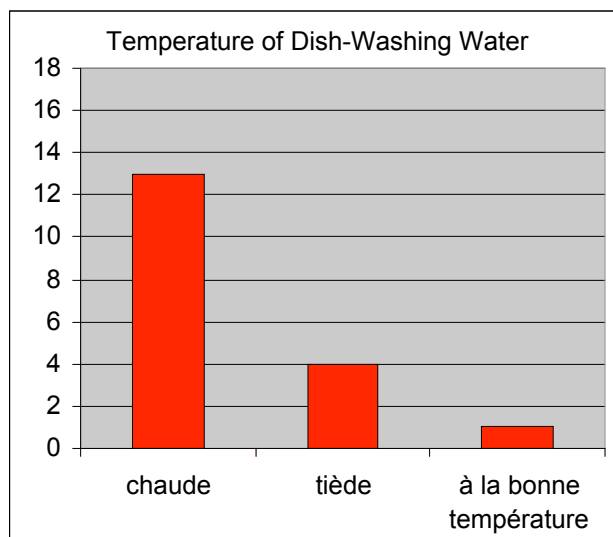


Figure 3.9 Dishwater

Just over three quarters of participants, 76.5%, said the water in which they washed dishes was *chaude* ‘hot’. Less than a quarter of participants, 23.5%, said their dishwater was *tiède* ‘lukewarm’, and one participant used another descriptor. *Chaude* ‘hot’ is clearly the preferred lexical term when describing the temperature of dishwater.

In response to Question (7), participants described the typical temperature of the water in their shower or bath. Because different people have different preferences, some variation is expected. The responses are provided in Figure 3.10. 7 of the 17 participants described their own shower or bath water as *chaude* ‘hot’. 5 participants described it as *bonne* ‘good’ or *à la bonne température* ‘at the good temperature’. 4 described it as *tiède* ‘lukewarm’, and one participant used another descriptor.

None of the responses to Question (7) was used by a majority of the participants. The most popular lexical term, used by 41.1% of the participants to describe their own bath or shower water, is *chaude* ‘hot’. *Bonne* ‘good’ or *à la bonne température* ‘at the good temperature’ are used by over a quarter of participants, 29.4%, and *tiède* ‘lukewarm’ is used by just under a

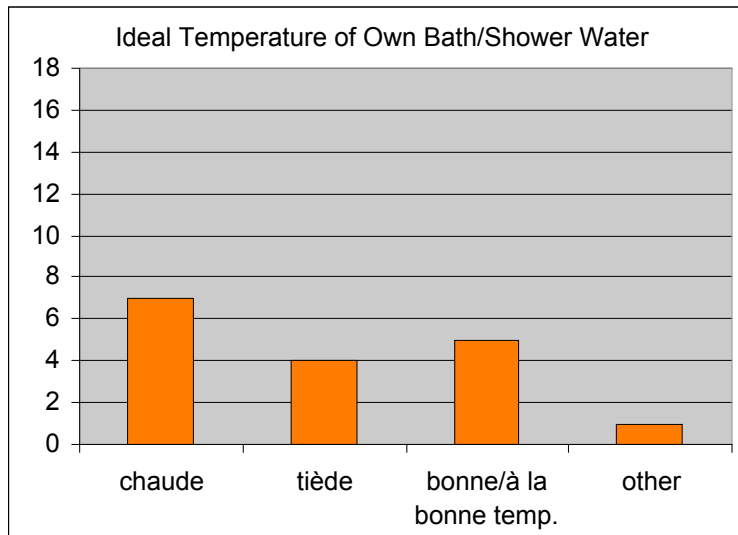


Figure 3.10 Adult Bathing Water

quarter, 23.5%. Thus, *chaude* ‘hot’ is slightly preferred by participants to describe their own bath or shower water.

Question (8) asks participants to describe the ideal temperature of bathwater for a baby. The interviewer pointed out that the baby’s bathwater should not be too hot or it would burn the baby, nor should it be too cold or the baby could get sick. Some participants seemed stumped by this question (but the interviewer wondered if it were because they were searching for a word or because they had never experienced giving a baby a bath and were not sure what the correct temperature would be); however, all participants were finally able to respond.

There was more variation in the responses to this question than to the two previous questions in this section. As shown in Figure 3.11, 9 of the 17 participants described the ideal temperature of a baby’s bath water as *tiède* ‘lukewarm’. 4 participants described it as *bonne* ‘good’ or *à la bonne température* ‘at the good temperature’, and 4 participants used the descriptor *ni trop chaude ni trop froide* ‘neither too hot nor too cold’. Two participants said it was *entre tiède et chaude* ‘between lukewarm and hot’, and 5 participants used other descriptors.

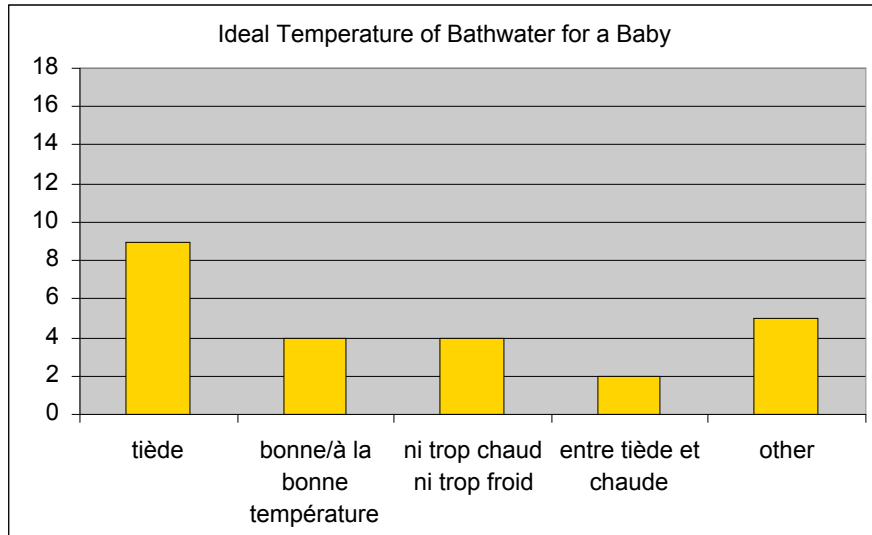


Figure 3.11 Baby Bathing Water

Just over half the participants, 52.9%, used the lexical term *tiède* ‘lukewarm’ in their response, while just under a quarter, 23.5%, used each of the lexical terms *bonne* ‘good’ and *ni trop chaude ni trop froide* ‘neither too hot nor too cold’ in their response. Thus, *tiède* ‘lukewarm’ is the preferred adjective when describing the ideal temperature of bathwater for a baby.

3.8 In Relation to Body Temperature

Without the use of a thermometer to actually measure temperature, one’s perception of temperature is always relative. The participants were thus asked a series of questions to determine how they would describe temperature as it relates to their own comfortable body temperature. Responses to these questions varied considerably.

3.8.1 Related to Abnormal Body Temperature

Two of the questions asked for the participants to describe body temperatures to determine if participants’ choice of adjectives would differ if they were describing a situation of body temperatures that were warmer or cooler than normal body temperature.

(9) If someone had a slight fever, how would you describe what you felt when you put your hand on their forehead?

(10) Suppose you had been in a heavily air-conditioned room for a few hours, and you were chilly. Someone touches your hand and exclaims, “Oh, your hands are so cold!” What would you say to describe their hands?

The descriptions given in response to the above questions are provided in Table 3.5 below.

Table 3.5 Abnormal Body Temperature

	<i>chaud</i> ‘hot’	<i>un peu chaud/ pas trop chaud/ légèrement chaud/ commencer à être chaud</i> ‘a little hot not too hot/ lightly hot/ to begin to be hot’	<i>de la fièvre</i> ‘some fever’	<i>un peu de fièvre/ un petit fièvre</i> ‘a bit of fever/ a little fever’	<i>de la tempér- ature</i> ‘some temper- ature’	<i>un peu brûlant/ ne brûle pas encore</i> ‘a little burning/ not burning yet’	<i>réchauffant/ me réchauffer</i> ‘reheating/ to reheat me’	other
Describing a very slight fever	6	8	3	6	3	2	0	1
Describing someone else’s not-cold hands when own hands are cold	15	0	0	0	0	0	2	3

The “other” response, a description given by only one participant, for describing a very slight fever is *une température élevée* ‘an elevated temperature’. The “other” responses describing someone else’s not-cold hands when one’s own hands are cold are *plus chaudes* ‘more hot’, *bon* ‘good’, and *m’as revigoré* ‘have revived me’.

Question (9) asked participants to describe in French the temperature they would feel on the forehead of someone who had a very slight fever. As can be seen in Figure 3.12, 6 of the 17 participants said the person’s forehead was *chaud* ‘hot’. 8 participants described that person’s forehead as *un peu chaud* ‘a little hot’, *pas trop chaud* ‘not too hot’, *légèrement chaud* ‘lightly hot’ or said the person *commence à être chaud* ‘begins to be hot’. 6 participants used *un peu de fièvre* ‘a bit of fever’ or *une petite fièvre* ‘a little fever’ in their description. 3 participants said *de*

la fièvre ‘some fever’, and 3 said *de la température* ‘some temperature’. Two participants said the person was *pas (encore) brûlant* ‘not (yet) burning’. One person used another descriptor.

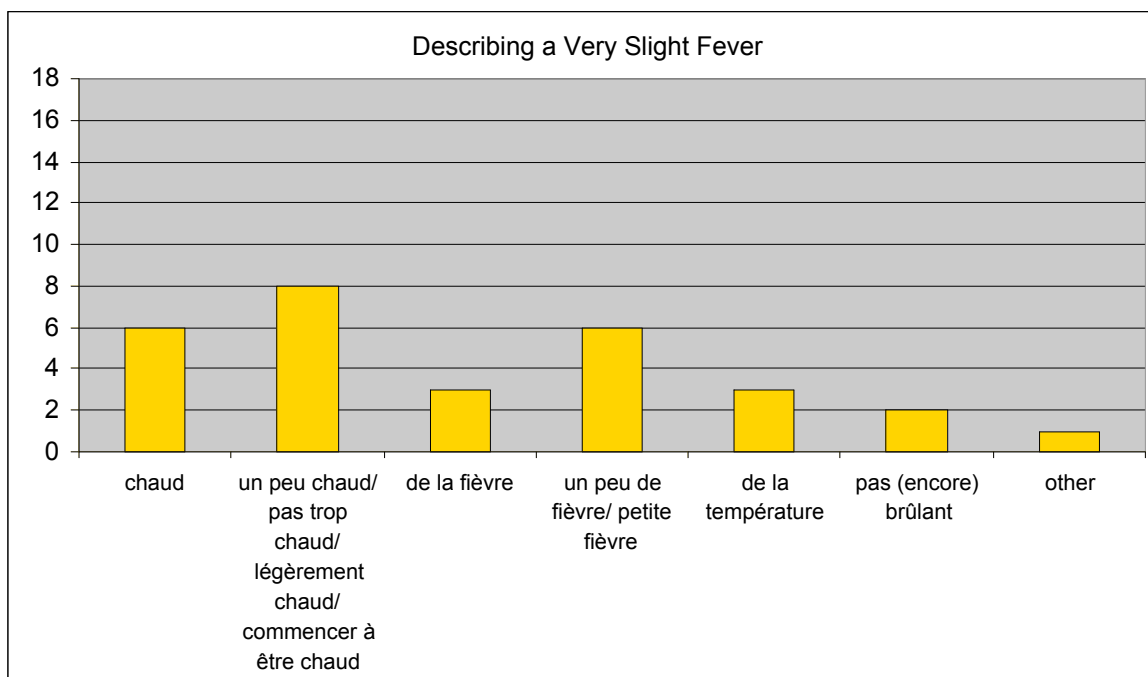


Figure 3.12 Very Slight Fever

When describing the temperature of the forehead of another person with a very slight fever, 35.3% of participants said it was *chaud* ‘hot’, but nearly half of the participants, 47.1%, used a modifier to convey a lesser degree of heat, saying that the forehead would feel *un peu chaud* ‘a little hot’, *pas trop chaud* ‘not too hot’, *légèrement chaud* ‘lightly hot’, or *commence à être chaud* ‘begins to be hot’. Just over one third of participants, 35.3%, used *un peu de fièvre* ‘a bit of fever’ or *une petite fièvre* ‘a little fever’. While none of these responses is used by a majority of participants, these descriptors are all preferred over the responses provided by fewer participants.

Participants were asked in Question (10) to describe in French how someone else’s hands felt when their own hands were cold, and the results are displayed in Figure 3.13. 15 of the 17

participants used the lexical term *chaudes* ‘hot’. Two participants described the other person’s hands as *réchauffantes* ‘reheating’ or *me réchauffe* ‘reheat me’, and 3 participants used another descriptor.

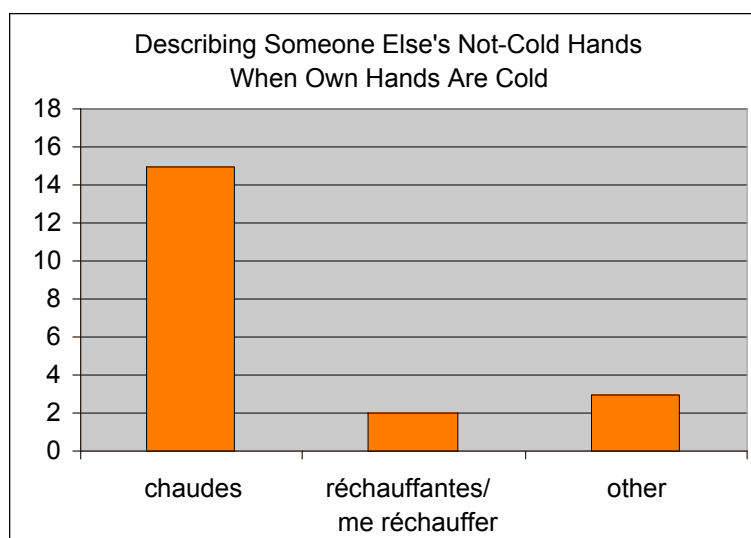


Figure 3.13 Someone Else’s Not-Cold Hands

When describing someone else’s not-cold hands when one’s own hands are cold, an overwhelming majority, 76.5%, of participants chose to use the lexical term *chaudes* ‘hot’. Thus *chaud* ‘hot’ is the preferred descriptor, although other descriptors are used by fewer participants.

3.8.2 Maintaining Body Temperature

In addition to describing temperatures that were higher or lower than normal, participants were also asked to describe situations of maintaining a normal, warm body temperature in a colder environment.

(11) Suppose you were hiking in the Alps with your colleague, and the two of you got lost in a snowstorm. You were huddling together to keep warm—how would you express that in French?

(12) What is the point of using blankets when it’s cold?

The descriptions given in response to the above questions are provided in Table 3.6 below.

Table 3.6 Maintaining Warm Body Temperature

	<i>se réchauffer</i> 'to reheat oneself'	<i>se tenir chaud</i> 'to hold oneself hot'	<i>rester chaud</i> 'to stay hot'	<i>(garder) la chaleur</i> '(to keep) the heat'	<i>c'est chaud/ pour avoir (plus) chaud</i> 'it's hot/ to be (more) hot'	<i>pour être chauffé</i> 'to be heated'	<i>confort-able</i> 'comfort-able'	<i>lourd/ pesant</i> 'heavy'	<i>avoir peur de froid</i> 'to be afraid of cold'	other
Express "huddle together to keep warm" in French	11	6	2	3	0	0	0	0	0	0
Why use blankets when it's cold?	6	1	0	0	3	2	2	2	3	1

The "other" response to the question asking why one would use blankets when it is cold is *pour protéger* 'to protect'.

In response to Question (11), participants described in French a hypothetical situation in which they and a colleague were lost in a snowstorm and had to huddle together to keep warm. As Figure 3.14 shows, 11 of the 17 participants expressed "to keep warm" as *se réchauffer* 'to reheat oneself'. 6 of the 17 participants expressed it as *se tenir chaud* 'to hold oneself hot'. 3 of the participants said *garder la chaleur* 'to keep the heat' or *pour la chaleur* 'for the heat', and two participants said *rester chaud* 'to stay hot'.

In expressing "to keep warm" in French, nearly two thirds of participants, 64.7%, used the lexical term *se réchauffer* 'to reheat oneself', and just over one third of participants, 35.3%, used *se tenir chaud* 'to hold oneself hot'. Only 11.8% of participants expressed keeping warm as *rester chaud* 'to stay hot', and 17.6% expressed it as *garder la chaleur* 'to keep the heat' or *pour*

la chaleur ‘for the heat’. The preferred term for expressing “to keep warm” in French is thus *se réchauffer* ‘to reheat oneself’.

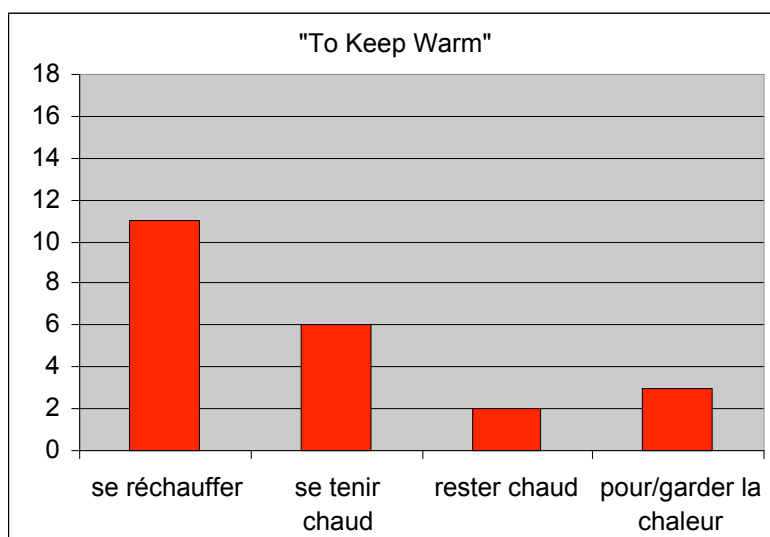


Figure 3.14 Expressing “To Keep Warm” in French

Question (12) asked participants about the purpose of using blankets. They were asked specifically about using blankets when it is cold to steer them toward the thermal reason and away from the possible psychological comfort of blankets; this attempt was only partially successful. As Figure 3.15 shows, responses to this question varied considerably. 6 of the 17 participants said that the purpose of blankets was *se réchauffer* ‘to reheat oneself’. 3 participants said blankets would be used because *c’est chaud* ‘it is hot’ or *pour avoir (plus) chaud* ‘to be (more) hot’ or *se tenir chaud* ‘to hold oneself hot’. 3 participants expressed the reason for blankets as *parce que j’ai froid* ‘because I am cold’. Delving into the more psychologically comforting purpose for blankets, two participants each said *lourd/pesant* ‘heavy’, and the one participant who used another descriptor said blankets are *pour protéger* ‘to protect’.

Over a third of the participants, 35.3%, expressed the purpose of blankets as *se réchauffer* ‘to reheat oneself’. Less than a quarter of participants, 23.5%, used the lexical term *chaud* ‘hot’

in their response. Fewer participants used other descriptors, but the preferred expression of the reason to use blankets when it is cold is *se réchauffer* ‘to reheat oneself’.

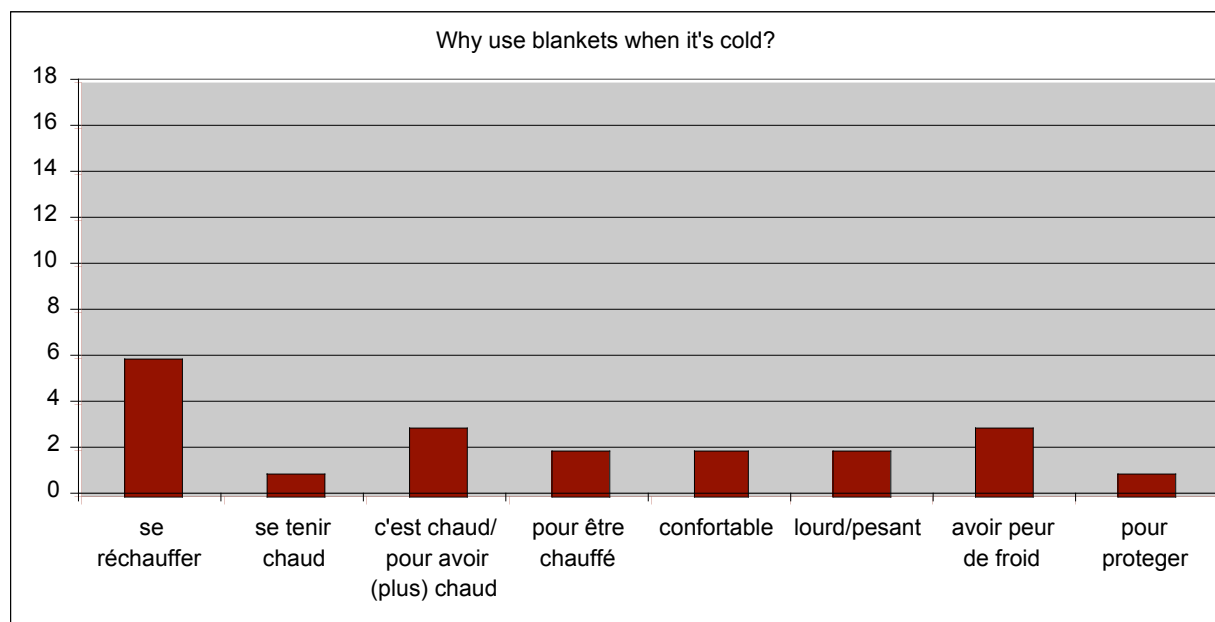


Figure 3.15 Purpose of Blankets

3.9 Temperature of Appliances

Participants were asked to describe the temperature of a television or laptop computer that had been left on for a few hours. These appliances were chosen because, as they increase in heat with extended use, they do become warmer than room temperature, but there is no chance that they could become hot enough to burn someone as an appliance such as an iron or a toaster would.

(13a) Suppose you had been watching a movie on TV, but when the movie was over, you realized that you had misplaced the remote, so you had to go turn it off manually. When you reached up to push the power button, you noticed a bit of warmth emanating from the screen. What would you say in French of the screen’s temperature?

(13b) Suppose you had been working on a laptop for a few hours. How would you describe how it felt—temperature-wise—against your lap or hand?

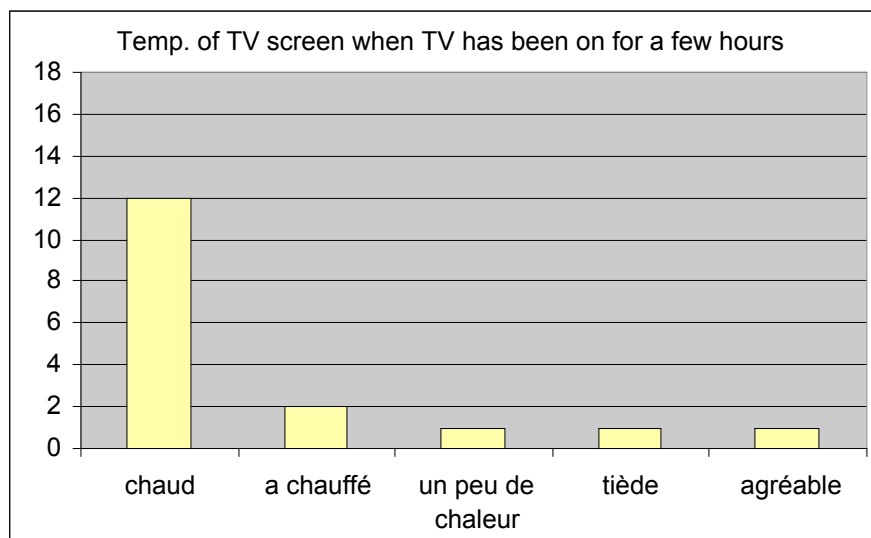
The descriptions given in response to the above questions are displayed in Table 3.7 below.

Table 3.7 Temperature of Appliances

	<i>chaud</i> ‘hot’	<i>chauffer/a chauffé</i> ‘to heat/ has heated’	<i>un peu de chaleur</i> ‘a little heat’	other
Temp. of TV screen that has been on a few hours	12	2	1	2
Temp. of laptop that has been on for some time	9	9	1	1

The “other” responses describing a television screen after it has been on a few hours are *agréable* ‘agreeable’ and *tiède* ‘lukewarm’. To describe a laptop that had been on a few hours, the “other” response is *un souffle bouillant* ‘a boiling breath’.

Participants were asked in Question (13a) to describe the temperature of a television that had been on for a few hours. As Figure 3.16 shows, 12 of the 17 participants described the sensation they would feel upon touching the screen of a television that had been on for a few hours as *chaud* ‘hot’. Two participants used some form of the verb *chauffer* ‘to heat’. One participant each gave the responses *un peu de chaleur* ‘a little heat’, *tiède* ‘lukewarm’, and *agréable* ‘agreeable’.

**Figure 3.16 Temperature of Television**

Over two thirds of participants, 70.6%, chose to use the lexical term *chaud* ‘hot’ when describing the temperature of a television screen. Only 11.8% used the verb form *chauffer* ‘to heat’, and only 5.9% of participants described *un peu de chaleur* ‘a little heat’, *tiède* ‘lukewarm’, or *agréable* ‘agreeable’.

When describing the temperature of a laptop that has been on for some time in response to Question (13b), 9 of the 17 participants used the lexical term *chaud* ‘hot’ in their response. 9 participants used a form of the verb *chauffer* ‘to heat’. One participant described the laptop’s temperature as *un peu de chaleur* ‘a little heat’, and one participant described it as *un souffle bouillant* ‘a boiling breath’. These results are provided in Figure 3.17.

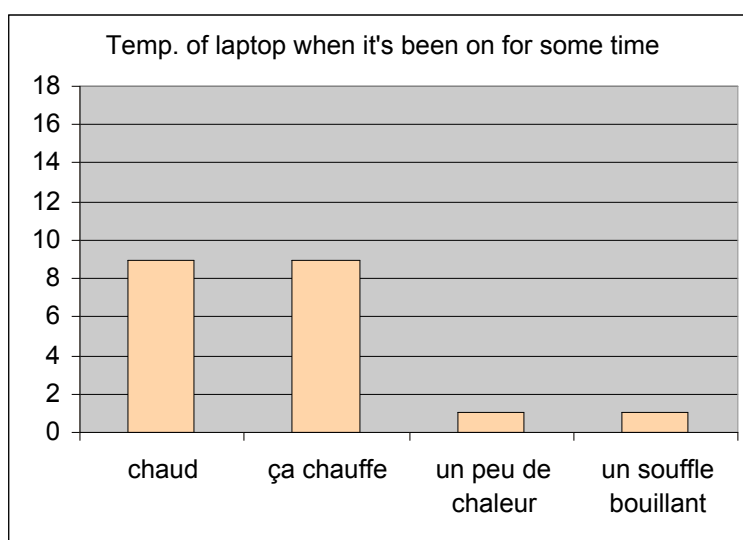


Figure 3.17 Temperature of Laptop

Over half the participants, 52.9%, described the temperature of a laptop as *chaud* ‘hot’, and another 52.9% described the temperature with the verb *chauffer* ‘to heat’. Like the temperature of the television, only 5.9% of participants used *un peu de chaleur* ‘a little heat’, and another 5.9% used *un souffle bouillant* ‘a boiling breath’. The preferred descriptions of a laptop’s temperature are *chaud* ‘hot’ or a form of *chauffer* ‘to heat’.

3.10 Self-generated List of Adjectives

Participants were asked to fill out two pages that entailed them coming up with their own adjectives to describe temperatures between “**cold**” and “**hot**” in English or between “*froid*” ‘cold’ and “*chaud*” ‘hot’ in French. They were directed to indicate on a picture of a thermometer the adjectives they would use. On one page, the question was asked in English with the numerical range of temperatures provided in degrees Fahrenheit in order to determine if the participants would use the lexical term **warm** on their own, and they were asked in French with the numerical range of temperatures usually provided in degrees Celsius on the other page to determine which other lexical terms would take the place of **warm**. The thermometer labeled in Fahrenheit was used on the English page because in the United States—where this study takes place—temperatures are usually presented in English and in degrees Fahrenheit. The thermometer labeled in Celsius was used on the French page because, for most of these native French speakers, where they grew up and learned to speak French, temperatures are usually presented in French and in degrees Celsius.⁶

3.10.1 English Series of Adjectives

In the questionnaire, there was a page that had a picture of a thermometer with temperature labeled in degrees Fahrenheit from –50° to 120°. Participants were asked to write in English the adjectives that they would typically use to describe various temperatures.

(14) On the following thermometer, indicate the English words you would use to describe temperature beginning with extreme cold (frozen) and increasing to extreme heat.

The adjectives that the participants used are sorted according to how many participants used each adjective, and the responses are provided in Table 3.8 below.

⁶ The exceptions are the francophones of Louisiana (one in this study) and the older francophones of Québec (2 in this study) who used the Fahrenheit system even in French; on their questionnaires, the thermometer on the French page, as well as the one on the English page, was labeled in degrees Fahrenheit.

Table 3.8 Temperature Adjectives in English

	chilly	cool	good	warm	other
English adjectives between “cold” and “hot”	2	8	2	10	6

The adjectives in the “other” category were each used by only one participant. They are: **mild**, **temperate**, **normal**, **pleasant**, **balmy**, and **frisky**.

The English adjectives the participants listed between “cold” and “hot” are displayed in Figure 3.18. 10 of the 17 participants used the word **warm** in their list, and 8 of the participants used **cool**. Two participants each used **good** and **chilly**, and 6 participants used another descriptor.

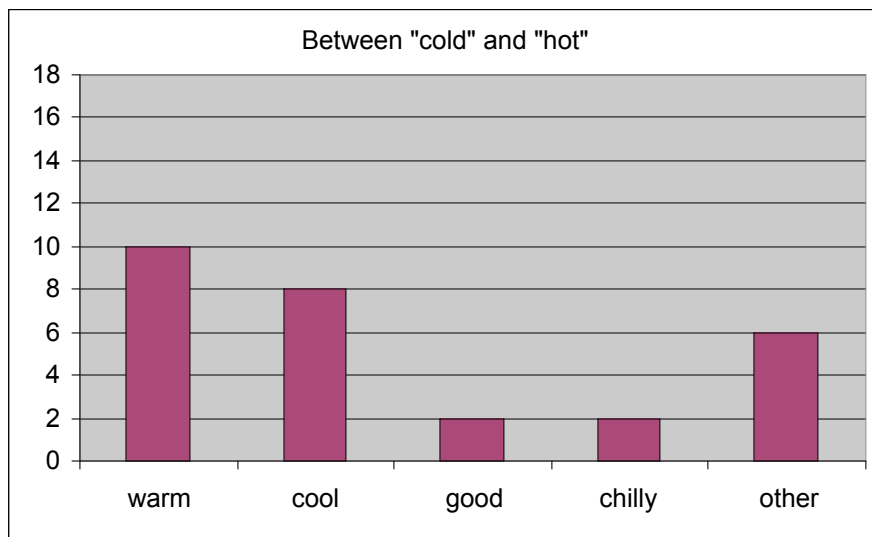


Figure 3.18 English Adjectives between “Cold” and “Hot”

Over half the participants, 58.8%, used the lexical term **warm** in their list of English adjectives. Less than half the participants, 47.1%, used **cool** in their list. Fewer participants used various other descriptors.

3.10.2 French Series of Adjectives

A few pages later in the questionnaire, there was another picture of a thermometer that was nearly identical to the first. Except for 2 of the Québécois participants and the one Louisianan participant, this second thermometer was labeled in degrees Celsius from -50° to 50° . This page was labeled in Celsius because most of the participants had grown up speaking French in countries that measured temperature in Celsius rather than Fahrenheit. Except for one younger participant (in her twenties) from Québec, the Québécois and Louisianan participants had grown up using Fahrenheit to measure temperature, so their questionnaires had the thermometer labeled in Fahrenheit for both the English adjectives and the French adjectives. The participants were asked to fill in adjectives in French that they would use to describe temperatures between “*froid*” ‘cold’ and “*chaud*” ‘hot’.

(15) On the following thermometer, indicate the French words you would use to describe temperature beginning with extreme cold (*gelé*) and increasing to extreme heat.

The adjectives the participants listed are sorted according to how many participants used each adjective, and the results are displayed in Table 3.9 below.

Table 3.9 Temperature Adjectives in French

	<i>frais</i> ‘cool’	<i>bon</i> ‘good’	<i>doux</i> ‘mild’	<i>agréable</i> ‘agreeable’	<i>un peu chaud</i> ‘a little hot’	other
French adjectives between “ <i>froid</i> ” ‘cold’ and “ <i>chaud</i> ” ‘hot’	8	10	5	2	2	6

The adjectives in the “other” category were each used by only one participant. They are: *assez froid* ‘rather cold’, *un peu froid* ‘a little cold’, *tiède* ‘lukewarm’, *tempéré* ‘temperate’, *confortable* ‘comfortable’, and *juste bien* ‘just well’.

The French adjectives that participants listed between “*froid*” ‘cold’ and “*chaud*” ‘hot’ in response to Question (15) are displayed in Figure 3.19. 10 of the 17 participants included *bon* ‘good’ in their list, and 8 participants included *frais* ‘cool’. 5 participants used *doux* ‘mild’ in their list, and two participants each used *agréable* ‘agreeable’ or *un peu chaud* ‘a little hot’. 6 participants used another descriptor.

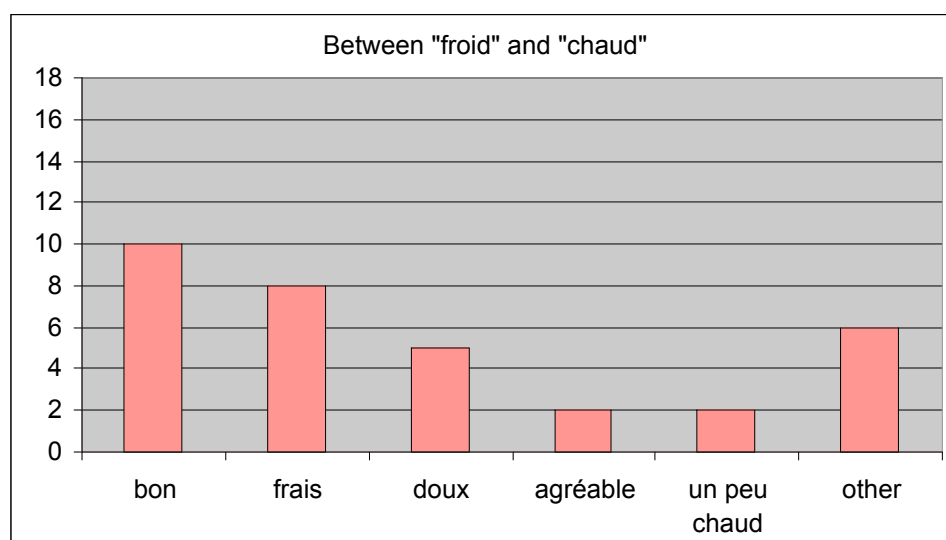


Figure 3.19 French Adjectives between “*Froid*” and “*Chaud*”

Over half of the participants, 58.8%, used *bon* in their list of adjectives, and just under half of the participants, 47.1%, included *frais* ‘cool’. Less than one third, 29.4%, included *doux* ‘mild’, and fewer participants included other descriptors.

3.11 Temperature Opposites

Due to the fact that adjectives describing temperature have a symmetry in English—cold as opposed to hot, cool as opposed to warm—participants were asked about temperature opposites to determine if there was a comparable symmetry in French.

(16a) What is the opposite of “**cool**” in English?

(16b) How would you translate it into French?

(17) *Quel est le contraire de « frais » ?* ‘What is the opposite of “cool”?’

Participants’ responses to Questions (16a) and (16b) as well as to Question (17) are sorted by adjective and are recorded in Table 3.10 and Table 3.11 below.

Table 3.10 Temperature Opposites in English

	warm	hot	other
Opposite of “ cool ” in English	11	5	2

One “other” response—**heat**—was given by one participant, and another “other” response—**cold**—was given by one participant who probably read the questionnaire question too fast.

Table 3.11 Temperature Opposites in French

	bon ‘good’	chaud ‘hot’	tiède ‘lukewarm’	(juste) bien ‘(just) well’	other
Opposite of “ cool ” into French	5	7	2	1	1
Opposite of “ <i>frais</i> ” ‘cool’	9	4	2	1	1

The “other” responses were adjectives that were each given by only one participant. The “other” response for the opposite of **cool** in French is *brûlant* ‘burning’. The “other” response for the opposite of “*frais*” ‘cool’ is *un peu chaud* ‘a little hot’.

Question (16a) asked participants to provide the opposite of **cool** in English and in French. Participants’ responses to the opposite of **cool** in English are displayed in Figure 3.20. 11 of the 17 participants responded with **warm**. 4 participants said it was **hot**, and one participant responded with another lexical term.

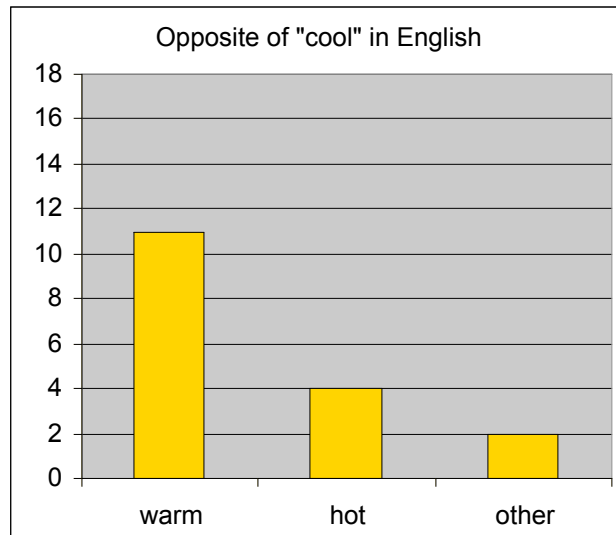


Figure 3.20 Opposite of “Cool” in English

Nearly two thirds of participants, 64.7%, responded that the opposite of **cool** is **warm**. Less than one quarter, 23.5%, responded with **hot**, and only two participants used another lexical term. **Warm** is used by a majority of participants and is thus the preferred response to the opposite of **cool**.

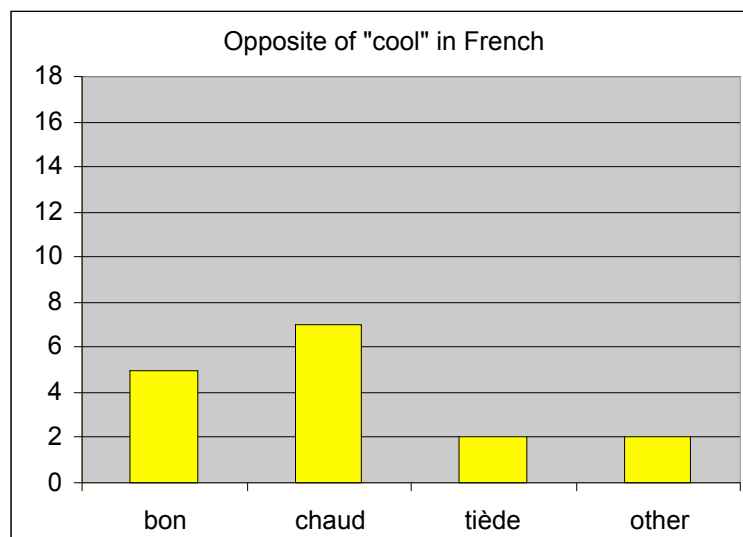


Figure 3.21 Opposite of “Cool” in French

Question (16b) asked participants to translate the opposite of **cool** into French, and the responses are displayed in Figure 3.21. 5 of the 17 participants responded with *bon* ‘good’. 7 participants responded with *chaud* ‘hot’. Two participants responded with *tiède* ‘lukewarm’, and two participants used another lexical term.

29.4% of participants responded that the opposite of **cool** is *bon* ‘good’ in French, and 41.2% said that it is *chaud* ‘hot’. Fewer participants responded with other descriptors. While none of the responses is used by a majority of participants, the preferred lexical term for the opposite of **cool** in French is *chaud* ‘hot’ followed by *bon* ‘good’.

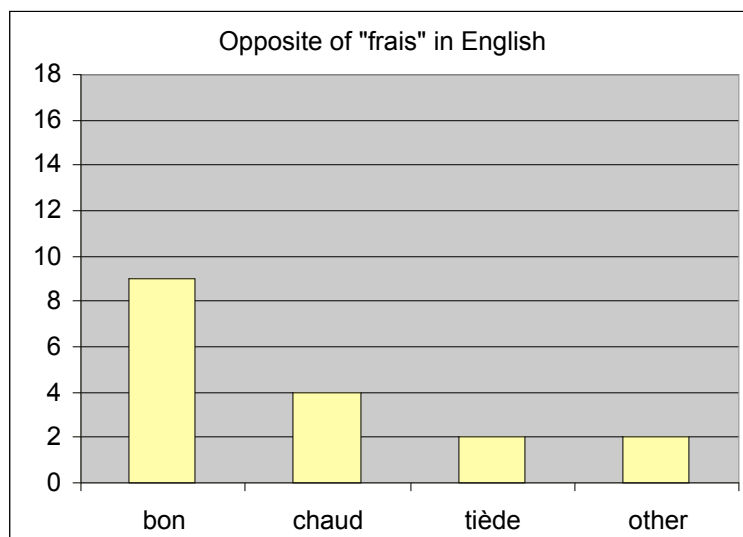


Figure 3.22 Opposite of “*Frais*” ‘cool’ in French

Question (17) asks participants to provide the opposite of “*frais*” ‘cool’ in French, and the results are displayed in Figure 3.22 above. 9 of the 17 participants said the opposite of “*frais*” ‘cool’ is *bon* ‘good’. 4 of the participants said it is *chaud* ‘hot’. Two participants used *tiède* ‘lukewarm’, and two participants used another lexical term.

Just over half the participants, 52.9%, chose the lexical term *bon* ‘good’ as the opposite of “*frais*” ‘cool’. Less than one quarter of participants, 23.5%, responded with *chaud* ‘hot’, and

fewer participants responded with other lexical terms. The preferred response to the opposite of “*frais*” ‘cool’ is thus *bon* ‘good’ as it is used by a slight majority of participants.

3.12 Temperature Translations

At the end of the interview process, participants were asked a few questions that differed from previous questions: in these later questions, participants were directly asked to translate certain adjectives pertaining to temperature. Previously, participants were asked questions in such a way that the lexical term **warm** would be the most likely response in English (although the participants were responding in French), but mention of **warm** was usually avoided in the question. With these questions, however, participants were asked to translate certain adjectives describing warmer temperatures from French into English or from English into French.

(18) How would you translate the word “**warm**” into French?

(19) How would you translate the word “**hot**” into French?

(20) How would you translate the word “*chaud*” ‘hot’ back into English?

The responses to Question (18) and Question (19) are displayed in Table 3.12 below.

The responses in the “other” category were provided by one participant each. The “other” translations of **warm** are *entre tiède et chaud* ‘between lukewarm and hot’, *une chaleur agréable* ‘an agreeable heat’, *bien* ‘well’, *étouffant* ‘stifling’, and *fiévreux* ‘feverish’. The “other” translations of **hot** are *bouillante* ‘boiling’ (the participant clarified that this adjective is for liquids), *température élevée* ‘elevated temperature’, and *très chaud* ‘very hot’.

Table 3.12 Translating English to French

	<i>bon</i> ‘hot’	<i>tiède</i> ‘lukewarm’	<i>chaud</i> ‘hot’	<i>brûlant</i> ‘burning’	other
Warm in French	7	4	8	0	5
Hot in French	0	0	15	2	3

The only adjective given by the participants as a translation for both **warm** and **hot** is *chaud* ‘hot’.

Table 3.13 below displays the responses given by the participants as a translation of “*chaud*” ‘hot’ in response to Question (20).

Table 3.13 Translating French to English

	hot	warm	other
<i>Chaud</i> ‘hot’ in English	14	3	1

The “other” response—**heat**—was given by only one participant.

Question (19) asks participants to translate the English lexical term **hot** into French. The results are displayed in Figure 3.23. 15 of the 17 participants translated **hot** as *chaud* ‘hot’. Two participants translated it as *brûlant* ‘burning’, and 3 participants each provided a different translation.

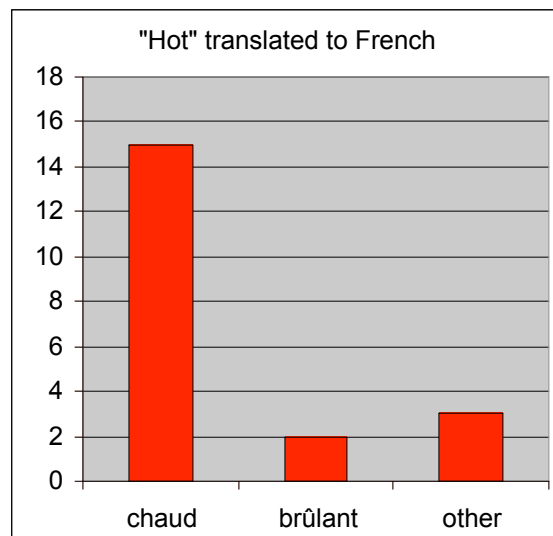


Figure 3.23 “Hot” in French

Most participants, 88.2%, translated **hot** as *chaud* ‘hot’, and fewer participants provided another translation. The preferred translation of **hot** into French is *chaud* ‘hot’.

Question (18) asked participants to translate the English lexical term **warm** into French. As Figure 3.24 shows, responses to this question show more variation than responses to the previous question. 8 of the 17 participants translated **warm** as *chaud* ‘hot’. 7 translated it as *bon* ‘good’. 4 participants provided *tiède* ‘lukewarm’ as the translation, and 5 participants used another lexical term.

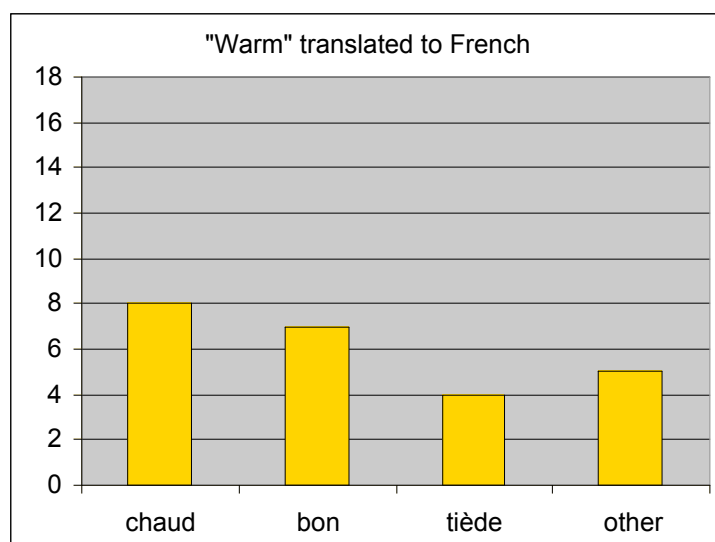


Figure 3.24 “Warm” in French

Just under half the participants, 47.1%, translated **warm** into French as *chaud* ‘hot’. Slightly fewer, 41.2%, translated it as *bon* ‘hot’. Just under a quarter of participants, 23.5%, provided *tiède* ‘lukewarm’ as the translation, and five participants each used another lexical term. None of the responses were used by a majority of participants, but *chaud* ‘hot’ or *bon* ‘good’ seem to be the most preferred translations of **warm** into French.

Because so many people translated **warm** into French as *chaud* ‘hot’, Question (20) was included in the questionnaire to ask participants how they would translate the French lexical term

“*chaud*” ‘hot’ into English. As the results displayed in Figure 3.25 show, 14 of the 17 participants translated “*chaud*” ‘hot’ as **hot**, and 3 participants translated it as **warm**. One participant used another descriptor. Only one participant gave the translation of “*chaud*” ‘hot’ as both: **hot/warm**.

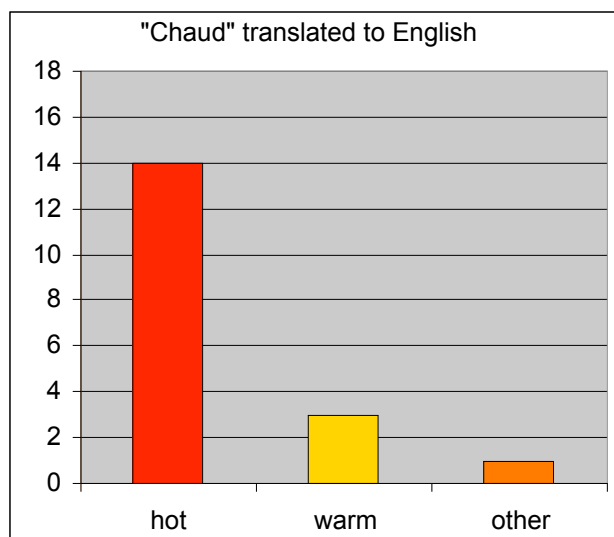


Figure 3.25 “Chaud” in English

A clear majority, 82.4%, of participants translated the French lexical term *chaud* ‘hot’ as **hot**. Very few of the participants translated it as **warm**, only 17.6%, or used another descriptor. Thus, the preferred translation for *chaud* ‘hot’ is **hot**.

3.13 Discussion of Results

While there is no lexical term directly equivalent to the English word “warm” in the French language, there are still ways to express the concept of warm. How, then, is “warm” expressed in French? What lexical terms are used to describe what would in English be warm things? Do these lexical terms vary depending on the type of situation? These questions should be kept in mind as the data are considered.

This chapter demonstrates that there is no direct translation in French for the English lexical term “warm”. However, rather than a variety of French lexical terms that can be used in any situation, careful examination of the data reveals that usually particular French lexical terms are more likely to be used only in particular situations to convey the meaning conveyed in English by the lexical term “warm”.

3.13.1 Describing Weather and Indoor Temperature

When describing contrasting temperatures, coming to somewhere warm from somewhere cold, a significant number of participants used *bon* ‘good’ or *chaud* ‘hot’ to describe the warm situation. For instance, 58.8% of participants used *bon* ‘good’ and 47.1% of participants used *chaud* ‘hot’ to describe how it would feel to come indoors to a party after having been walking in the freezing cold outside. Likewise, 52.9% of participants used *bon* ‘good’ and 41.2% of participants used *chaud* ‘hot’ to describe a situation of contrasting temperatures when camping, in which it feels warm by the fire as opposed to cold in the tent. Additionally, 5.9% of participants described the temperature indoors as *bien* ‘well’, and 17.6% of participants described the temperature by the fire as *bien* ‘well’. Examination of the data reveals that the adverb *bien* ‘well’ seems to be an option in the Quebecois dialect, especially for the younger generation, that is equivalent to the adjectival form *bon* ‘good’. Thus, *bon* ‘good’ (or *bien* ‘well’) and *chaud* ‘hot’ are the preferred lexical terms to describe warm ambient temperatures in contrast to cold ambient temperatures.

When describing general warmth without contrast, participants were asked to describe a late spring or early summer day with pleasant temperature. These responses included a great deal of variation, but the response used by a majority of participants, 58.8%, to describe a sunny day was *bon* ‘good’. To describe a similar but cloudy day, responses again varied. 47.1% of participants again used *bon* ‘good’ in their response, and the next most popular response was

nuageux ‘cloudy’ with 23.5%. In describing a similar temperature on a humid day, the most popular response, provided by 76.5% of participants, was *humide* ‘humid’, and *lourd* ‘heavy’ was used by 29.4% of participants. For the humid day, *bon* ‘good’ was still used by 35.3% of participants. Thus, even though descriptions of temperature were specifically requested, many participants seemed to prefer descriptions of other aspects of the weather instead. In describing the temperature of a warm, sunny day, *bon* ‘good’ is the preferred lexical term, but when the weather is not sunny, participants tend more towards other lexical terms. For a cloudy day, *bon* ‘good’ is still preferred, but *nuageux* ‘cloudy’ is very common, and for a humid day, *humide* ‘humid’ is by far the preferred descriptor. *Bon* ‘good’ is still used in descriptions of all three types of weather, but as the weather becomes unpleasant to the experiencer, the lexical term *bon* ‘good’ is used less often regardless of the “perfect” temperature.

3.13.2 Describing the Temperature of Edible Liquids

Participants were asked to describe both a soup that had cooled from burning hot and a cool beverage that had warmed to room temperature to determine if they would choose different lexical terms to describe situations in which the temperature had increased or decreased. In fact, to describe the soup that had decreased in temperature, there was a great deal of variation and no clearly preferred descriptor. The responses used the most often were *ne pas trop chaud* ‘not too hot’ or *ne plus trop chaud* ‘no longer too hot’, by 29.4% of participants, *ça va* ‘okay’, again by 29.4% of participants, and *bon* ‘good’ or *à la bonne température* ‘at the good temperature’, also by 29.4% of participants. During the interview, most participants seemed to hesitate before responding or to struggle with a response to this question, so it is unsurprising that responses varied so greatly and that there is no descriptor preferred by a majority of the participants.

However, to describe a cool beverage that had increased in temperature by being left out on a countertop, 47.1% of participants described the beverage as *tiède* ‘lukewarm’. The next

most popular response, provided by 35.3% of participants, was *pas frais* ‘not cool/fresh’. In this case, the drink is unappetizing to the experiencer, so none of the participants described the temperature of the beverage as *bon* ‘good’. *Tiède* ‘lukewarm’ seems to be the preferred response.

3.13.3 Describing the Temperature of Liquids for Washing

The focus of this section was on only one question. Participants were asked to describe the temperature of the water in which they wash dishes or take a shower specifically so their responses to these questions could be contrasted to their responses to the third question, which asked about the appropriate temperature for a baby’s bathwater. It was expected that a baby’s bathwater should be at a lower temperature than most adults bathing water or the temperature at which they would wash dishes. When describing the dishwater, a strong majority of participants, 76.5%, described the water as *chaude* ‘hot’, as expected.

When describing their own bath or shower water, there was some variation according to each participant’s personal preferences. 41.1% of participants described the temperature of the water in which they take a bath or shower as *chaude* ‘hot’, but 29.4% of participants described it as *bonne* ‘good’ or *à la bonne température* ‘at the good temperature’ and 23.5% described it as *tiède* ‘lukewarm’. Because there is such variation and no strongly preferred descriptor, *chaude* ‘hot’ is the tentatively preferred lexical term to describe one’s own bath or shower water.

In describing the temperature of a baby’s bathwater, however, a slight majority of participants, 52.9%, responded with *tiède* ‘lukewarm’. *Bonne* ‘good’ was again used, as were more specific elaborations such as *ni trop chaude ni trop froide* ‘neither too hot nor too cold’ and *entre tiède et chaude* ‘between lukewarm and hot’. The preferred descriptor of a baby’s bathwater was *tiède* ‘lukewarm’. This response is very interesting in regards to the definition of *tiède* ‘lukewarm’, as will be explained in Section 3.14 below.

3.13.4 Related to Body Temperature

Participants were asked some questions that related their perception of temperature directly to how it felt in relation to their own body's temperature. All descriptions of temperature are relative, so relating the temperature to what one feels is probably one of the most accurate descriptions without the use of a thermometer.

When asked to describe the temperature they felt when touching the forehead of someone who had a very slight fever, there was a good bit of variation among responses. Many participants responded with *chaud* 'hot', 35.3%, but slightly more participants, 47.1%, responded with a modified version of the adjective: *un peu chaud* 'a little hot', *pas trop chaud* 'not too hot', *tu commences à être chaud* 'you are beginning to be hot', etc. A similar quantity of participants, 35.3%, responded with a modified form of another descriptor: *un peu de fièvre* 'a bit of fever' or *une petite fièvre* 'a little fever'. All of these responses are used by participants more than the other responses provided, but there is no clearly preferred descriptor.

Participants were also asked to describe the temperature of someone else's not-cold hands when their own hands were very cold from being in a room with strong air conditioning for some time. In this case, there was not a great deal of variation among the responses, and a majority of the participants, 76.5%, described the other person's hands as *chaudes* 'hot'. Similar to the situation of contrasting ambient temperature described in Section 3.13.1, this is another instance of temperature contrast since their own hands were very cold and someone else's hands were warm, and again, *chaud* 'hot' is the most popular descriptor.

When asked how to express "to keep warm" in French, there was not much variation among the responses. The majority of participants, 64.7%, responded with *se réchauffer* 'to reheat oneself'. The next most common response was *se tenir chaud* 'to hold oneself hot' by

35.3% of participants. The lexical term *se réchauffer* ‘to reheat oneself’ is clearly the preferred response.

Participants were also asked to explain the purpose of using blankets when it is cold, and for this question, responses were a bit more varied. The response used the most by participants was *se réchauffer* ‘to reheat oneself’ by 35.3% of participants, so it is again the preferred response.

3.13.5 Describing the Temperature of Appliances

Participants were asked about the temperature of appliances that would increase in temperature but not to the point of causing burns or other injury. There was some variation in these responses but not a great deal. When asked to describe the temperature felt on a television screen that had been on for a few hours, a strong majority, 70.6% of participants, responded that it was *chaud* ‘hot’. When asked to describe the temperature felt on the bottom of a laptop that had been in use for a few hours, 52.9% of participants described it as *chaud* ‘hot’, and 52.9% of participants used a form of the verb *chauffer* ‘to heat’ in their response. This use of the verb to describe the temperature of a laptop as opposed to a television may be due to the fact that when one uses a laptop on one’s lap, one can usually feel the temperature building up, so one is aware of the process. However, when one uses a television, one is usually seated across the room from the appliance, watching it from a distance, and one only becomes aware of the temperature of the screen when one’s hand is near it as when pushing the power button. Nonetheless, *chaud* ‘hot’ or a form of the verb *chauffer* ‘to heat’ are the preferred descriptors of a warm appliance.

3.13.6 Self-generated List of Adjectives

When participants were asked to list the adjectives that they would use between *froid/cold* and *chaud/hot*, there was of course a great deal of variation. Some participants only listed a couple of adjectives, and some had long lists. For the list in English, the most common

lexical terms were **warm**, included by 58.8% of participants, and **cool**, included by 47.1%.

Thus, many of these native French-speakers do use **warm** when they speak in English. For the list in French, the most common lexical terms included were *bon* ‘good’ by 58.8% of participants, *frais* ‘cool’ by 47.1% of participants, and *doux* ‘mild’ by 29.4% of participants. Thus, participants were most willing to use **warm** and **cool** in English and *bon* ‘good’ and *frais* ‘cool’ in French.

3.13.7 Temperature Opposites

Most native English-speakers and even dictionaries and thesauri would agree that the opposite of **cold** is **hot** and the opposite of **cool** is **warm**. The native French-speakers participating in this study were asked this question and similar questions in both English and French. When asked for the opposite of “*frais*” ‘cool’ in French, a slight majority of participants, 52.9%, responded with *bon* ‘good’, and only 23.5% responded with *chaud* ‘hot’. When asked for the opposite of **cool** in English, 64.7% of participants, again a majority, responded with **warm** and only 23.5% responded with **hot**. However, when asked for the opposite of **cool** in French, none of the responses were used by a majority of participants. 41.2% of participants responded with *chaud* ‘hot’, and 29.4% of participants responded with *bon* ‘good’. The opposites of **cool** and “*frais*” ‘cool’ are less certain when crossing from one language to another.

3.13.8 Translations of Temperatures

Given that some participants regularly used *chaud* ‘hot’ as the opposite of **cool** and “*frais*”, further questions were asked to determine the exact meaning of *chaud* ‘hot’ and other adjectives describing temperature. When participants were asked to translate **hot** into French, a strong majority, 88.2% of participants, responded with *chaud* ‘hot’. When they were asked to translate **warm** into French, there was less accord between responses. 47.1% of participants

responded with *chaud* ‘hot’ and 41.2% responded with *bon* ‘good’. Additionally, 23.5% of participants responded with *tiède* ‘lukewarm’, and 29.4% responded with some other descriptor. Clearly, **warm** can be problematic to translate into French, but the most common responses are *chaud* ‘hot’ or *bon* ‘good’. Because *chaud* ‘hot’ was the most common translation of both **hot** and **warm**, participants were then asked to translate “*chaud*” ‘hot’ into English. 82.4% of participants translated it as **hot**, and only 17.6% of participants translated it as **warm**. Thus, while *chaud* ‘hot’ could conceivably mean **warm**, **hot** is the preferred translation of *chaud* ‘hot’.

3.14 Summary

Throughout the interview and the questionnaire, participants were asked about many different situations in which one would often use “warm” in English. There were many different questions and different types of questions in order to determine how to express “warm” in French. This study found that in general, there is a lot of variation as to how “warm” is described in different situations, and the words a person chooses in French will depend on the context and on what exactly the person wants to say and on what aspect of the situation they want to focus.

The main lexical terms that are used in French in situations in which the lexical term warm would be used in English are *chaud* ‘hot’, *tiède* ‘lukewarm’, and *bon* ‘good’. These are not direct translations. Each of these lexical terms is used in certain situations or to convey certain nuances.

Chaud ‘hot’ is usually translated in English as “hot”, but as previously explained, it could sometimes be translated into English as “warm”. Thus, in French, *chaud* ‘hot’ has a broader definition than “hot” does in English; *chaud* ‘hot’ can be applied to slightly lower temperatures than “hot”. In English, the speaker may use the lexical term “warm” to comment on something that is hot enough to be called “hot”, but in French, the speaker would often say *chaud* ‘hot’

when observing that something is too warm or is warmer than usual. One instance was when the participants were asked to describe the temperature of the forehead of someone with a very slight fever.

Chaud ‘hot’ is also often used in a situation of immediate contrast with something cold, like when a speaker would say in English, “It’s warm in here” or “Your hands are warm”. There are many examples in this study in which participants use *chaud* ‘hot’ to describe the warmer of two contrasting temperatures, e.g. describing the temperature indoors after walking in the freezing cold outdoors, describing the temperature near the fire as opposed to cold in the tent, describing someone else’s not-cold hands when one’s own hands are very cold from the hyperactive air conditioning.

Because *chaud* ‘hot’ can be used to describe temperatures that could be hot or warm in English, a native-English speaker may wonder how to differentiate between hot and warm in French. If it is not clear from the context (i.e. a television screen would probably not be “hot” no matter how long the television has been on, so the use of *chaud* ‘hot’ is not problematic in that context) and specificity is called for, French speakers will often use modifiers. Many times in the interviews and on the questionnaires, a few participants would use *un peu chaud* ‘a little hot’ or *pas trop chaud* ‘not too hot’ to differentiate from just *chaud* ‘hot’. The same is often done in English, as in “a little too hot”.

Tiède ‘lukewarm’ is another lexical term that can be translated as “warm” in English. Usually, *tiède* ‘lukewarm’ is translated as “lukewarm” or “tepid”, and this meaning is understandable in the case of the cool drink that was left out on the counter until it had warmed to room temperature. However, when asked about a baby’s bathwater, participants were reminded that the bathwater for a baby could not be too hot or else it would burn the baby, nor could it be too cold or else the baby would catch a cold or otherwise get sick. “Lukewarm” or

“tepid” is too cold for a baby’s bathwater; nevertheless, *tiède* ‘lukewarm’ is the preferred descriptor for bathwater for a baby. Therefore, the definition of *tiède* ‘lukewarm’ in French must also be broader than the definition of lukewarm in English.

Tiède ‘lukewarm’, like “lukewarm” in English, is typically only used to describe liquids. The exception is in the Louisiana French dialect, wherein *tiède* ‘lukewarm’ can describe anything from liquid to weather to anything that can be “warm” in English.

The third French lexical term most commonly used in the responses to the questions of this study is *bon* ‘good’. It is literally translated as “good” in English, but it obviously has more meanings. *Bon* ‘good’ is used when the English lexical term “warm” would be a pleasant or agreeable thing, as in “nice and warm”. For instance, *bon* ‘good’ is used to describe the temperature of a pleasant, sunny, late spring or early summer day. However, *bon* ‘good’ is not used to describe something that is warm but unpleasant. It is less common but still used in participants’ descriptions of a cloudy, gray day, and it is used even less often but again still present in participants’ descriptions of a humid day. However, in these questions, the “perfect” temperature was emphasized, and when *bon* ‘good’ was used, it was usually with a qualifier: *Il fait bon, mais...* ‘it is good/nice, but...’ *Bon* ‘good’ was sometimes used in the description of soup that had cooled until it was ready to eat, but it was not used to describe the temperature of a cool drink that had warmed to room temperature because in the case of the latter, the temperature of the drink was not agreeable and the drink was in fact unappetizing. *Bon* ‘good’ was also not used in the description of the temperature of appliances because the appliance’s temperature was also not a good thing, per se. *Bon* ‘good’ was sometimes used to describe the temperature inside the house when it was freezing cold outside or the temperature by the fire when it was cold in the tent; in these cases, *bon* ‘good’ was a comment not only on temperature but also on how good it felt.

Bon ‘good’ can also be used to describe a temperature that is “right”, a non-specific good temperature that is clear from context. Native English-speakers may say “just right”. For instance, many participants used *bonne* ‘good’ to describe the temperature of their own bath or shower water, and many participants also used *bonne* ‘good’ to describe the appropriate or ideal temperature of bathwater for a baby. In all likelihood, these two baths would not be the same temperature; the baby’s bath would probably be a bit cooler than the adult’s bath or shower water. However, *bonne* ‘good’ or *à la bonne température* ‘at the good temperature’ is still an appropriate description because it is clear from context that they are talking about the “right” temperature of a baby’s bathwater or the “right” temperature for their own shower.

The data and analyses of this study have demonstrated the truth of my hypothesis in that not only was no single preferred translation of the English lexical term “warm” found in French, but also in that the preferred translations of *chaud* ‘hot’, *tiède* ‘lukewarm’, and *bon* ‘good’ are more likely to be used in some situations and less likely to be used in others. A visual comparison of the English and French thermal descriptors is displayed below. The color bar in Figure 3.26 shows the span of the definitions of English and French descriptors of temperature.

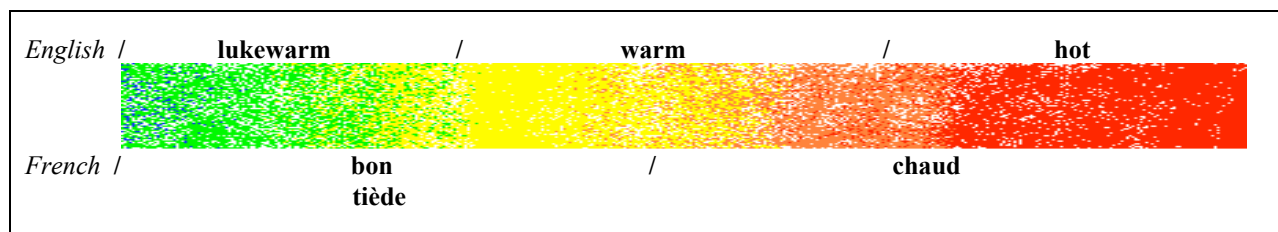


Figure 3.26 English/French Adjectives by Color

The English definitions of “hot” and “lukewarm” are narrower, and “warm” is situated in the middle. However, the French definitions of *chaud* ‘hot’, *bon* ‘good’, and *tiède* ‘lukewarm’ are broader so they meet somewhere in the middle. Thus, both languages have these adjectives,

and of course many more, to encompass the entire array of possible situations and meanings of temperature.

Chapter 4

Conclusion

“Warm...Warmer...Getting Warmer!”

Hot-and-cold, a children's finding-game

4.1 Problems with Research

The first challenge faced when studying linguistic relativity is always the question: What exactly is linguistic relativity? There is such a wide scope of theories that fall under that heading, that one must first and foremost acquaint one's audience with one's own working definition of linguistic relativity.

In the current study, linguistic relativity is defined in one of its weaker forms, namely that language does not determine but rather influences a speaker's thought structure, culture and behavior, and worldview.

Another important dilemma that must be addressed is the circular problem of the necessity of choosing one particular language to discuss these language issues. So how can one remain objective about the other languages under discussion when one has inevitably accepted the biases and limitations of one particular language, probably one's native language?

Unfortunately, there is no means of communicating other than using language, so these biases must simply be accepted and, hopefully, accounted for in the final analysis. In this study, the researcher has attempted to be as objective as possible, and has pointed out the situations when such objectivity is impossible. The recognition of the potential problem should compensate for any prejudice because, as Lucy (2004: 19) explains, language guides the speaker to a particular interpretation or aspect of reality, a “systematic default bias in their habitual tendencies”, but this bias will not completely blind speakers to other aspects of reality. Thus, being aware of the bias should allow the researcher to deal with its consequences.

4.2 Aim of the Study

In this project, certain translations of the English lexical term “warm” into French were examined to determine their ranges of meaning. The purpose of doing so was two-fold: 1) to verify that there is in fact no single equivalent word for the lexical term “warm” in French, and 2) to determine if there were certain situations in which one possible translation of “warm” is more likely to be used than other possible translations.

4.3 Linguistic Relativity Applied to Thermal Descriptions

As translators and foreign language teachers are well aware, there is not usually a convenient and exact one-to-one correlation of meaning between two languages. Not all concepts expressed through the words of one language are exactly the same as the ones expressed through the words of another language (Schopenhauer 1800: 32). While it is at least theoretically possible that any meaning can be expressed in any language, the expression of that meaning will probably not be without some differences, which could result in failure to communicate crucial and/or cultural information: “not everything that can be said in one language can be said (*without additions and subtractions*) in another...” (emphasis added) (Wierzbicka 1992: 20). Words will always contain different nuances in different languages, whether it be due to the etymology of the word, through its evolved meaning in slang, because of the plethora or lack of possible synonyms, or for whatever reason. As Saussure (1913: 651) expressed, if words did stand for pre-existing concepts, then they would all have exact equivalents in meaning in different languages. However, exact equivalents are rarely the case; indeed, sometimes a single word in one language is faced with several possible translations in the next language (Rabassa 1989: 5, Wierzbicka 1992: 6-8, and others). Several synonyms may be available which may all encompass the same meaning but may indicate different directions of meaning or different nuances that will prompt the speaker to choose one synonym over others.

According to the theory of linguistic relativity, the influence of language is nearly omnipresent. Its influence permeates all activities, and it can be recognized by its constant arranging of data and everyday analyses of phenomena (Whorf 1939a: 135). Everything one thinks or says about any experience is done so through the filter of language (Slobin 1996: 75). Due to this filter, language is not a direct reflection of the world, but is rather a human interpretation of the world (Wierzbicka 1992: 7). Human beings think, communicate, and react through the medium of language. Because language is used to interpret the world at large, it is through language that the concepts of temperature are interpreted and expressed. The lexical terms “warm”, “lukewarm”, “hot”, *chaud*, *tiède*, and so forth, are not only descriptions of situations (or of materials in particular situations), but they are also personal interpretations of those situations.

Like all sensory experiences, temperature is interpreted as it is experienced by speakers. Temperature descriptions are not identical for all experiencers because not only the descriptors but the experience itself is subjective—e.g. 85° F or 100° F is not “hot” for everyone or in all circumstances. Thus, words take on expanded meanings which are generated by context. They transcend their dictionary definitions, and their actual effect can only be determined in their contextual environment (Biguenet and Schulte 1989: xi). Within this context, however, there is a certain “cultural agreement” so that when a speaker uses the lexical term “hot” or *chaud*, their hearers identify and understand the meaning in the situation being described.

4.4 Language as Definition of Experience

That which humans experience is not presented to them in chunks or sections which can easily be described as separate from all other portions of experience; rather, what a person experiences is presented or absorbed in an endless stream of data. There are not usually nicely delineated subdivisions so that “This is tall”, but “That is medium”, and “That other thing is

short”—or, more pertinently to this study, “This is hot”, “That is warm”, and “That other thing is *tiède*”. These divisions are not self-evident, nor are they necessarily objectively true. Instead, they are defined by the experiencer when he puts his experience into language. Indeed, Whorf believed that the primary purpose of language is “a classification and arrangement of the stream of sensory experience which results in a certain world-order” (1936a: 55). This world-order is only created when the stream of sensory experience is put into language and thereby defined.

Whorf further speaks of the world being presented in “a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic system in our minds” (1940b: 213-214). Using temperature specifically, rather than the world at large, each experiencer uses their linguistic system to organize the “kaleidoscopic flux” of thermal impressions; thus, different linguistic systems, i.e. different languages, yield different systems of organization.

4.5 Language Defines Temperature

The definitions and concepts provided by language cannot exist independently of each other. According to Saussure, a concept alone is nothing because it is defined only through its comparison to other concepts: “...initially the concept is nothing, that is only a value determined by its relations with other similar values, and that without them the signification would not exist” (1913: 651). He goes on to explain that context is all-important in comprehending the meaning of a word because a word is defined not only by the context in which it is used but also by the context of all other possible words, both similar and dissimilar, that are not used. For instance, “warm” is defined in opposition to “cool”, but it is also defined by the fact that it is not exactly “hot” and not exactly “lukewarm”. Likewise, Schopenhauer explains that all the different words together delineate the boundaries within which a concept moves and occurs (1800: 32), although it must not be forgotten that those boundaries are, to a certain extent, subjective according to

each experienter. According to Saussure again, all words that are used to express related ideas limit each other reciprocally; the value of each lexical term is the result of the simultaneous presence of the other related terms (1913: 651). Thus, “hot” only has meaning because it is contrasted with “cold”, and “warm” only has meaning because it is compared to the more extreme “hot” and the less intense “cool”.

The boundaries between these and other thermal descriptors are not clearly delineated. Of necessity, they must be rather blurred given the subjectivity with which, and the variety of situations in which, people describe temperature. As can be seen in Figure 4.1 (previously appearing as Figure 3.26), as the different colors fade into one another, the different temperatures transition gradually into one another.

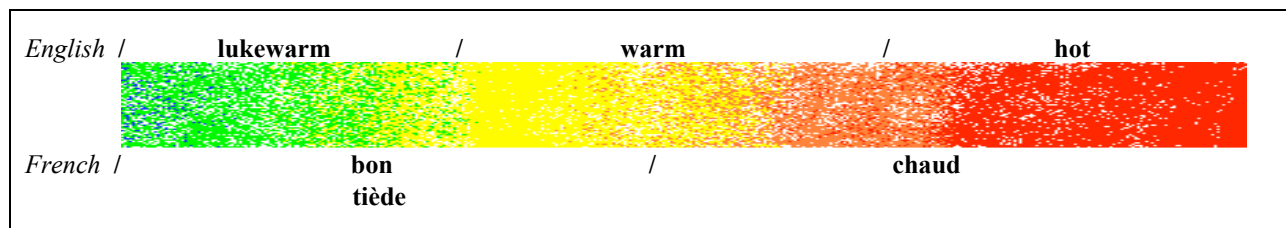


Figure 4.1 English/French Adjectives by Color

Just as there is not one definite point at which the color bar changes from orange to red, so too is there no particular numerical temperature at which something is no longer “lukewarm” but “warm” or no longer “warm” but “hot”.

This stream of thermal experience is classified differently in different languages because the words of the different languages do not always convey equivalent meanings. The English lexical term “warm” can sometimes be accurately translated as *bon* ‘good’ or *tiède* ‘lukewarm’ and sometimes as *chaud* ‘hot’ in French. Furthermore, the French lexical terms *bon* ‘good’ and *tiède* ‘lukewarm’ can sometimes be translated to “lukewarm” and other times to “warm” in

English. Additionally, the French lexical term *chaud* ‘hot’, can correctly be translated into English as “warm” or as “hot”, depending on the situation. Saussure explained that if a lexical term did not exist, its content would be subsumed into other, closely related words (1913: 651). Likewise, without an equivalent for the English lexical term “warm”, the meaning of “warm” is contained in the French lexical terms *bon* ‘good’, *tiède* ‘lukewarm’, and *chaud* ‘hot’.

Figure 4.1 above shows that, due to their differing language systems, native French speakers and native English speakers classify temperature differently. I suggest that in doing so, their experiences of the temperature are interpreted differently. Therefore, linguistic relativity—the theory that one’s language influences the way one thinks about a situation or interprets reality—is undoubtedly at play in the interpretation of temperature in both French and in English.

4.6 Further Research

As comprehensive as the researcher tried to be, there is more to learn about this linguistic phenomenon regarding thermal descriptors. The scope of this study was not large enough to determine if regionalism or climate play a part in participants’ responses. Also, discussion with native English speakers in Louisiana has revealed that native inhabitants of this once francophone region may share some perceptions of temperature with native French speakers. Further research into the thermal descriptors in French, English, and even other languages can only broaden our understanding of linguistic relativity.

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Appendix A

Interview Questions

(Questions in English, responses should be in French)

1. Suppose it was wintertime and you were walking to a party at someone's house. It's a very cold night—you can see your breath and the wind is blowing—and you had a little ways to walk. Then you finally get to the house where the party is, and you go inside where the heater was on and there were a bunch of people there talking and laughing. When you step through the door, what would you say in French to express the temperature inside?
2. When you were a child and your mother put a bowl of soup in front of you on the table, she would tell you not to eat it right away or it would burn your mouth. After waiting a few minutes, what would you say in French of the soup's temperature when it was ready to eat?
3. If you were outside on a late spring or early summer day and the sun was shining and a nice breeze was blowing and it was perfect short-sleeves weather—not hot but not a bit of chill in the air—how would you describe the weather in French?
What if it was the same temperature but it was very cloudy and gray?
What if it was very humid?
4. Suppose you had been watching a movie on TV, but when the movie was over, you realized that you had misplaced the remote so you had to go turn it off manually. When you reached up to push the button, you noticed a bit of warmth emanating from the screen. What would you say in French of the screen's temperature?
5. Do you refrigerate your drinks (soda, juice, bottled water, beer)?
If so, if you wanted a nice cold drink, but the glass had been left out on the counter and was no longer cold, how would you describe the temperature of the beverage in French?
6. Suppose you were going to give a baby a bath. You don't want the temperature of the bathwater to be too hot. How would you describe the appropriate temperature of the bathwater?

7. If someone had a *very slight* fever, what would you say in French of the temperature you felt on their forehead?
8. Suppose you had been in a heavily air conditioned room for a few hours, and you were a bit chilled. Someone touches your hand and exclaims, “Oh, your hands are so cold!” What would you say in French of their hands?
9. (Do you know what an electric blanket is?) Why would you use an electric blanket? What is the point of using blankets when it is cold?
10. At what indoor temperature are you too cold in the winter? At what indoor temperature are you too hot in the summer? (At what temperature do you set your thermostat?)
11. If you were camping in the late fall, how would you express in French that it is warm by the fire but cold in the tent?
12. Suppose you were hiking in the Alps with your colleague, and the two of you got lost in a snowstorm. You were huddling together to keep warm—how would you express that in French?
13. Why do you think that there is no equivalent for the English word “warm” in French?*
14. Why do you NOT feel the “need” to convey this [temperature] when you speak French?*

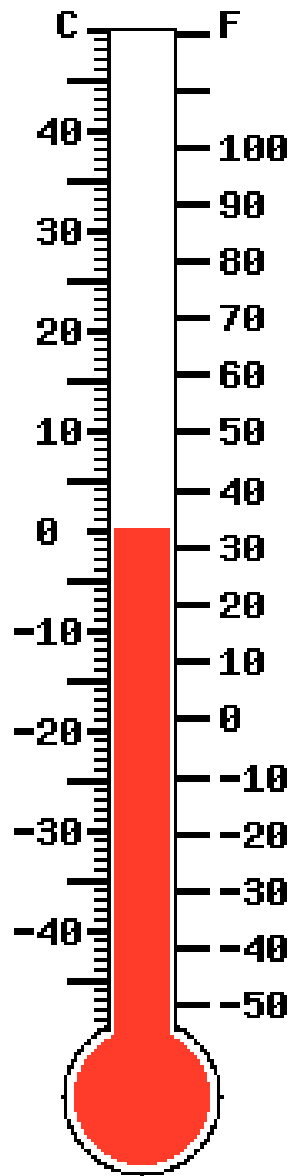
**Researcher’s Note: Questions #13 and #14 were not asked until the end of the whole interview process, after the questionnaire had been completed and collected.*

Appendix B
Questionnaire

1. What is your first language?
2. Where are you from?
3. Where did you learn French? How did you learn French?
4. What is the opposite of “cool” in English? How would you translate it into French?
5. How would you translate “*il fait frais*” into English? What is its opposite in French, and how would you translate it?
6. At about what temperature would you stop saying “*il fait froid*” and start saying “*il fait frais*”?
7. At about what temperature would you stop saying “*il fait frais*” and what would you say then?
8. In French, how would you describe the temperature of bath water or the water in the shower?
9. In French, how would you describe the temperature of the water you wash dishes in?
10. For what range of outside temperature would the phrase “*il fait chaud*” be appropriate?

11. On the following thermometer, indicate the English words you would use to describe temperature beginning with extreme cold (frozen) and increasing to extreme heat.

Current Temp



**Researcher's Note: The Celsius temperatures on this page were erased on the hard copies of the questionnaire that the participants used.*

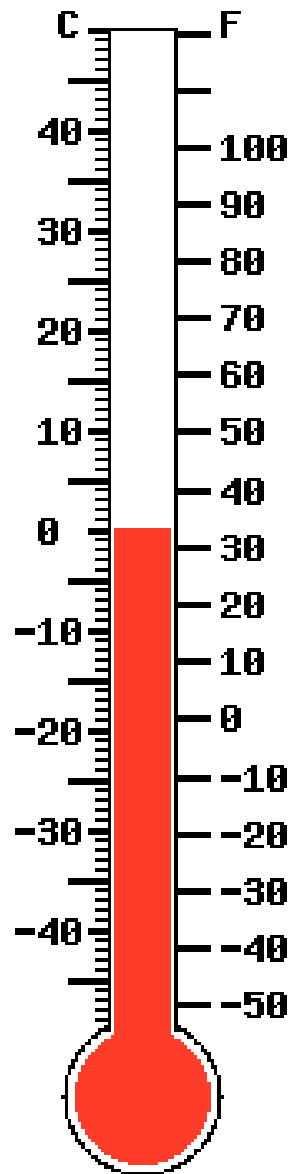
12. Translate the following words/phrases into French and put them in order from coolest to hottest:

cool	boiling	skin temperature	icy
hot	tepid	very hot	freezing
comfortable	cold	a little hot	burning
icy	lukewarm	scorching	mild
			frigid

[illegible]

13. On the following thermometer, indicate the French words you would use to describe temperature beginning with extreme cold (*gelé*) and increasing to extreme heat.

Current Temp



**Researcher's Note: The Fahrenheit temperatures on this page were erased on the hard copies of the questionnaire that most participants used. The Celsius temperatures rather than the Fahrenheit were erased on the questionnaires for most Québécois and Louisianan participants, as explained in Section 3.10.2 of Chapter 2.*

14. How would you translate the word “warm” into French?
15. How would you translate the word “hot” into French?
16. How would you translate the word “*chaud*” back into English?
17. *Quel est le contraire de « frais »?*
18. How would you translate the word “warmth” into French?
19. If you were translating a conversation or dialogue from English into French, how would you express the difference between the words “warm” and “hot”?

Appendix C

Participant Responses

Table C.1 Color Key for Regions

Northern France
Mid-France
Southern France
Switzerland
Québec
Africa
Louisiana

Table C.2 Contrasting Ambient Temperature

Participant	Warm indoors, compared to cold outdoors	While camping: warm by the fire but cold in the tent
A	<i>Qu'est-ce qu'il fait bon ici!</i>	<i>il fait bon / il fait froid dans la tente</i>
B	<i>Il fait bon</i>	<i>il fait bon près de feu et il fait froid dans la tente</i>
C	<i>On tient au chaud (?)</i>	<i>le feu peut aider à revigorer, mais à l'intérieur, c'est désagréable</i>
D	<i>Il fait bon ici</i>	<i>il fait bon près du feu, il fait bien froid dans la tente</i>
E	<i>Il fait vraiment bon ici</i>	<i>il fait bon / il fait frais dans la tente</i>
F	<i>Il fait chaud ici</i>	<i>il fait chaud devant le feu, mail il fait vite froid quand on s'éloigner</i>
G	<i>Il fait chaud ici</i>	<i>il est bon de se réchauffer près de feu, il fait tellement plus chaud près du feu</i>
H	<i>Il fait bon, il est bien, il fait chaud</i>	<i>il fait chaud près du feu et froid dans la tente</i>
I	<i>ça sent bon ici dedans</i>	<i>c'est chaud à côté du feu est c'est froid dans la tente</i>
J	<i>Il fait chaud ici, il fait meilleur</i>	<i>il fait bon près du feu alors qu'il fait froid sous la tente, il fait meilleur près du feu</i>
K	<i>Ah, il fait bon ici</i>	<i>il fait bon devant le feu (on a chaud devant, on a froid derrière), on est bien devant la feu</i>
L	<i>il fait chaud</i>	<i>on gèle dans la tente, on est bien devant le feu</i>
M	<i>Oh, qu'est-ce qu'il fait bon ici</i>	<i>il fait vraiment bon près du feu, mais c'est plutôt froid dans la tente</i>
N	<i>On gèle dehors. Il fait chaud à l'intérieur.</i>	<i>c'est froid dans la tente, mais c'est chaud près du feu</i>
O	<i>Il fait bon ici</i>	<i>il fait bon près du feu, mais il fait froid dans la tente</i>
P	<i>Il fait chaud</i>	<i>il fait chaud dehors, mais il fait froid à l'intérieur de la tente</i>
Q	<i>Il fait bon</i>	<i>c'est bien près du feu, il fait froid et il fait chaud près du feu</i>

Table C.3 Ambient Weather Temperature

Participant	Warm outside		
	late spring or early summer, sunny, not hot but not chilly	same temperature, but cloudy & gray	same temperature, but very humid
A	<i>il fait bon</i>	<i>il fait bon, mais il fait gris</i>	<i>c'est humide, il fait bon et humide</i>
B	<i>agréable, il fait bon</i>	<i>il fait bon</i>	<i>il fait lourd, il fait humide, but temperature would be bon</i>
C	<i>tropical, l'été indien</i>	<i>il fait sombre, obscure, la nuit</i>	<i>on parle de la maladie possible</i>
D	<i>il fait bon</i>	<i>il fait moche aujourd'hui, mais il fait bon, la température normale</i>	<i>il fait humide</i>
E	<i>on est bien, il fait bon</i>	<i>c'est couvert, il fait bon, mais c'est couvert</i>	<i>il fait lourd</i>
F	<i>agréable</i>	<i>agréable</i>	<i>humide</i>
G	<i>il fait doux aujourd'hui, il fait bon aujourd'hui</i>	<i>c'est marron, le contraste, il fait étrangement doux</i>	<i>il fait tranchement humide, c'est marron cet humidité</i>
H	<i>il fait beau, il fait bon, c'est pas chaud, c'est pas froid, c'est parfait</i>	<i>il fait nuageux, frais, pas de soleil</i>	<i>c'est collant, c'est pas idéal, c'est humide, chaud et humide</i>
I	<i>tiède</i>	<i>tiède</i>	<i>c'est humide, c'est lourd, le temps est lourd, humide, pas trop chaud, pas trop froid, mais c'est humide</i>
J	<i>c'est bien, il fait ni chaud ni froid, la température idéale, le temps est idéal</i>	<i>il fait bon mais qu'il y a des nuages</i>	<i>il fait bon, mais c'est humide, il fait humide</i>
K	<i>belle journée aujourd'hui, il fait bon</i>	<i>c'est pas une belle journée, c'est une journée triste</i>	<i>c'est très humide, c'est pesant, c'est très désagréable, aujourd'hui il fait lourd</i>
L	<i>c'est parfait, il fait bon, c'est beau</i>	<i>il fait pas très beau, c'est triste, c'est déprimante, la température est déprimante</i>	<i>c'est collant, la température est collante, c'est pesant</i>
M	<i>il fait bon</i>	<i>il fait bon, mais le ciel est couvert aujourd'hui</i>	<i>il fait bon mais c'est un peu trop humide, il fait bon mais il y a de l'humidité dans l'air</i>
N	<i>température idéale</i>	<i>c'est nuageux</i>	<i>c'est humide</i>
O	<i>il fait bon</i>	<i>il fait bon</i>	<i>il fait bon, il fait/c'est humide</i>
P	<i>tempéré, assez beau</i>	<i>le temps est nuageux, imprimeur</i>	<i>beau et humide</i>
Q	<i>agréable, très agréable</i>	<i>le temps est gris, il fait bon mais le temps est gris</i>	<i>il fait lourd, il fait bon mais lourd</i>

C.4 Edible Liquids (Drinking and Eating)

Participant	Beverage temperature ("cold drink" that has warmed to room temperature)	"Ready to eat" temperature of soup (cooled from "burning hot")
A	<i>n'est pas au frais, n'est pas fraîche</i>	<i>ça va, c'est pas trop chaud</i>
B	<i>frais</i>	<i>c'est bon, c'est tout juste, c'est parfait</i>
C	<i>réchauffé, ce n'est plus glacé, la bonne température, acceptable, bon</i>	<i>chaude au ventre</i>
D	<i>tiède (mais pas dans la même manière que la soupe est tiède)</i>	<i>la bonne température ?, tiède</i>
E	<i>c'est réchauffé, il chauffe, il a pris la température de la pièce</i>	<i>c'est pas trop chaud, ça va</i>
F	<i>tiède</i>	<i>ce n'est pas chaud, ce n'est pas tiède, c'est à la bonne température</i>
G	<i>à une température ambiante</i>	<i>ce n'est plus trop chaud, c'est bon maintenant</i>
H	<i>tiède</i>	<i>chaud (avant, il est bouillant, brûlant)</i>
I	<i>c'est qu'ède (tiède)</i>	<i>je crois c'a refroidit assez pour manger, c'est plus trop chaud pour manger</i>
J	<i>c'est pas frais, c'est à température ambiante</i>	<i>c'est pas trop chaud, c'est moins chaud, c'est tiède (peut-être)</i>
K	<i>c'est chaud, il est chaud, il est trop chaud, il est pas frais</i>	<i>ça va, je peux manger maintenant, c'est moins chaud, va pas me brûler</i>
L	<i>c'est chaud, il est chaud, il est trop chaud, il est pas frais</i>	<i>il reste encore chaud</i>
M	<i>c'est tiède, c'est pas si frais</i>	<i>ça va maintenant, je peux manger ?</i>
N	<i>tiède</i>	<i>la soupe est tiède</i>
O	<i>c'est tiède, c'est tièdesse</i>	<i>c'est bon maintenant, elle a refroidi maintenant</i>
P	<i>ça dépend à la température de la maison</i>	<i>la nourriture est prête (avant, le plat est chaud, maintenant, le plat a refroidi et maintenant, on peut manger sans risque de brûler)</i>
Q	<i>c'est tiède</i>	<i>ça va</i>

C.5 Liquids for Washing

Participant	Temperature of dish-washing water	Temperature of own bath or shower water	Ideal temperature of bathwater for a baby
A	<i>l'eau chaude</i>	<i>l'eau est bonne</i>	<i>pas trop chaud</i>
B	<i>à l'eau chaude, toujours</i>	<i>tiède</i>	<i>tiède</i>
C	<i>eau chaude</i>	<i>bouilloire, douche bouillante</i>	<i>la bonne douche/piscine, parfait pour son corps, l'eau est à point, correcte, parfaite, bonne</i>
D	<i>à l'eau chaude</i>	<i>de l'eau chaude</i>	<i>tiède...entre tiède et chaude</i>
E	<i>eau chaude</i>	<i>à la bonne température, à la température du corps</i>	<i>la bain doit être la bonne température ou la température du corps</i>
F	<i>chaud</i>	<i>chaud</i>	<i>c'est entre tiède et chaud, c'est medium</i>
G	<i>l'eau est tiède</i>	<i>l'eau est à bonne température</i>	<i>à bonne température</i>
H	<i>très chaude</i>	<i>chaude</i>	<i>tiède</i>
I	<i>dans l'eau chaude</i>	<i>tiède for warm water, chaude for hot water</i>	<i>juste tiède, pas trop chaud, pas trop froid, c'est juste tiède</i>
J	<i>c'est à la bonne température + c'est tiède</i>	<i>c'est à la bonne température</i>	<i>c'est ni trop chaud ni trop froid, c'est idéal comme température</i>
K	<i>l'eau est trop chaude ou trop froide</i>	<i>l'eau est à bonne température, c'est bon, c'est chaud, c'est trop chaud, c'est froid, c'est glacé</i>	<i>c'est tiède</i>
L	<i>très chaude</i>	<i>chaude</i>	<i>tiède</i>
M	<i>tiède</i>	<i>chaude</i>	<i>je veux dire ni trop chaud ni trop froid, température ambiante</i>
N	<i>chaud</i>	<i>chaud</i>	<i>tiède</i>
O	<i>chaude</i>	<i>tiède</i>	<i>tiède</i>
P	<i>l'eau doit être tiède</i>	<i>l'eau est tiède</i>	<i>dans l'eau tiède, ni chaud ni froid, une température tempérée</i>
Q	<i>chaude</i>	<i>bonne</i>	<i>l'eau est bonne</i>

C.6 Related to Body Temperature

Participant	Describing a very slight fever	Describing someone else's not-cold hands when own hands are cold	Express "huddle together to keep warm"	What is the point of using blankets when it's cold?
A	<i>il a de la température</i>	<i>ta main est chaude</i>	<i>il faut qu'on se tient au chaud</i>	<i>parce que j'ai froid, ça me teint au chaud</i>
B	<i>tu as un peu de fièvre, tu as un peu chaud</i>	<i>t'as chaud</i>	<i>se mettrait contre eux pour se tenir chaud</i>	<i>c'est confortable</i>
C	<i>il brûle pas encore, il est chaud, il a la fièvre</i>	<i>ça me réchauffe, tu me donnes la vie, tu me remontes la morale, tu m'as revigoré</i>	<i>se tenir de se réchauffer de corps</i>	<i>pour se rechauffer la corps</i>
D	<i>t'as chaud</i>	<i>siennes seraient chaudes, tu as les mains chaudes</i>	<i>on a dû réchauffer l'un l'autre, on se mit ensemble et on commence à réchauffer</i>	<i>de serai chauffé</i>
E	<i>il a le front chaud</i>	<i>t'as les mains chaudes</i>	<i>on a dû se tenir chaud, on s'est serré pour se réchauffer</i>	<i>parce que c'est lourd, c'est chaud, c'est confortable</i>
F	<i>pas brûlant, mais moite ou un peu brûlant</i>	<i>chaudes, mes mains sont gelées mais les teins sont chaudes</i>	<i>se tenir chaud, devons se tenir chaud bien séré</i>	<i>pour avoir chaud</i>
G	<i>tu commences à être chaud, ton front commence à être chaud</i>	<i>tes mains sont si chaudes, sont rechauffantes</i>	<i>il faut qu'on se réchauffait, que nous réchauffions</i>	<i>j'ai peur d'attraper froid</i>
H	<i>chaud</i>	<i>les mains chaudes</i>	<i>il faut se serrer ou se coller pour rester chaud, pour garder sa chaleur</i>	<i>pour se réchauffer</i>
I	<i>il a un 'tit fièvre, son front est chaud, son front est un peu chaud, je crois il a un p'tit fièvre</i>	<i>les tiens sont chaudes</i>	<i>on se met ensemble pour se chauffer, pour rester chaud</i>	<i>pour te chauffé</i>
J	<i>tu as de la température, mais ça va, c'est pas trop chaud</i>	<i>tu n'as pas les mains si froides que moi, tu as les mains plus chaudes</i>	<i>il faut se réchauffer</i>	<i>se réchauffer</i>
K	<i>tu as de la fièvre</i>	<i>t'as chaud aux mains</i>	<i>il ferait que ce qu'on colle pour on se réchauffer</i>	<i>la pèsantaire ?</i>
L	<i>t'as un peu chaud, tu fait l'air d'un peu de fièvre</i>	<i>mais tiens sont tellement chaudes</i>	<i>il ferait que ce qu'on colle pour on se réchauffer</i>	<i>?</i>
M	<i>tu as un peu de fièvre ou tu es légèrement chaud, tu as un front un peu chaud</i>	<i>les tiens sont chaudes—c'est bon, et toi, tu as les mains chaudes—c'est bon</i>	<i>on doit se réchauffer, on doit se tenir chaud</i>	<i>pour avoir plus chaud, pour réchauffer</i>
N	<i>tu as de la température, de la fièvre</i>	<i>tes mains sont chaudes</i>	<i>on doit se coller pour garder la chaleur</i>	<i>c'est pour se réchauffer</i>
O	<i>chaud, un peu chaud, t'as un peu chaud, t'as un peu de fièvre</i>	<i>tu as les mains chaudes</i>	<i>il faut qu'on se serre pour se réchauffer, pour se tenir chaud</i>	<i>pour se réchauffer</i>
P	<i>une température élevée</i>	<i>tes mains sont chaudes</i>	<i>il faut rassembler, regrouper pour la chaleur</i>	<i>pour protéger</i>
Q	<i>tu as un peu de fièvre</i>	<i>tes mains sont chaudes</i>	<i>se réchauffer</i>	<i>parce que j'ai froid</i>

C.7 Temperature of Appliances

Participant	Temperature of television screen when it has been on for a few hours	Temperature of laptop computer when it has been on for some time
A	<i>est chaud</i>	<i>l'ordinateur est chaud</i>
B	<i>agréable</i>	<i>c'est chauffé</i>
C	<i>?</i>	<i>ça chauffe</i>
D	<i>l'écran est encore chaud</i>	<i>ça chauffe mes cuisses, le portable est en train de chauffer</i>
E	<i>la télé a chauffé</i>	<i>il est chaud, il chauffe</i>
F	<i>tiède</i>	<i>chaud</i>
G	<i>l'écran est chaud</i>	<i>le souffle est bouillant</i>
H	<i>ça dégage un peu de chaleur</i>	<i>ça dégage un peu de chaleur</i>
I	<i>le T.V. est chaud</i>	<i>ça chauffe, c'est chaud</i>
J	<i>c'est chaud</i>	<i>ça chauffe, c'est chaud</i>
K	<i>c'est pas brûlant, c'est chaud</i>	<i>c'est pas brûlant, c'est chaud</i>
L	<i>c'est chaud</i>	<i>c'est chaud</i>
M	<i>oh la la, mais c'est chaud, ça</i>	<i>oh la la, ça a chauffé</i>
N	<i>chaud</i>	<i>chaud</i>
O	<i>c'est chaud, l'écran est chaud</i>	<i>a chauffé</i>
P	<i>chaude, la télé est chauffe</i>	<i>est chaud</i>
Q	<i>l'écran est chaud</i>	<i>l'ordinateur portable chauffe</i>

C.8 Self-Generated List of Adjectives

Participant	Between “cold” and “hot”	Between “froid” and “chaud”
A	cool	<i>bon</i>
B	frisky, cool, warm	<i>il fait frais, il fait bon/doux</i>
C	--	--
D	cool, warm	<i>il fait bon</i>
E	cool, warm	<i>frais, bon, doux, agréable, un peu chaud</i>
F	mild, warm	<i>frais, bon, un peu chaud</i>
G	good	<i>doux, bon</i>
H	cool, warm	<i>doux, frais</i>
I	chilly, pleasant, warm	<i>tiède, confortable</i>
J	warm	<i>frais, bon</i>
K	--	<i>assez froid, un peu froid, bon</i>
L	cool	<i>juste bien</i>
M	it feels good outside	<i>bon/doux, agréable</i>
N	chilly, warm, temperate	<i>tempéré</i>
O	cool, warm	<i>frais, bon</i>
P	normal	<i>frais</i>
Q	cool, balmy, warm	<i>frais, bon, agréable</i>

C.9 Temperature Opposites

Parti- cipant	Opposite of “cool”		<i>le contraire de “frais”</i>
	English	translated to French	
A	warm	<i>bon</i>	<i>bon</i>
B	warm	<i>chaud</i>	<i>chaud</i>
C	heat	<i>chaud</i>	<i>bon/tiède</i>
D	warm	<i>tiède</i>	<i>bon</i>
E	warm	<i>bon</i>	<i>bon</i>
F	warm	<i>chaud</i>	<i>un peu chaud</i>
G	hot	<i>chaud</i>	<i>bon</i>
H	cold	<i>froid</i>	<i>je ne sais pas</i>
I	warm	<i>tiède</i>	<i>tiède</i>
J	hot	<i>chaud</i>	<i>bon</i>
K	warm	<i>bon</i>	<i>bon</i>
L	warm	<i>juste bien</i>	<i>bien</i>
M	warm	<i>bon</i>	<i>chaud</i>
N	hot	<i>chaud</i>	<i>chaud</i>
O	warm	<i>bon</i>	<i>bon</i>
P	hot/warm	<i>chaud</i>	<i>chaud</i>
Q	hot	<i>brûlant</i>	<i>bon</i>

C.10 Temperature Translations

Participant	“Warm” translated to French	“Hot” translated to French	“Chaud” translated to English
A	<i>bon/chaud</i>	<i>chaud</i>	hot
B	<i>(water) chaud/ (weather) bon</i>	<i>(water) bouillante/ (weather) chaud</i>	hot
C	<i>fiévreux</i>	<i>température élevée</i>	heat
D	<i>entre tiède et chaud, une chaleur agréable</i>	<i>chaud</i>	hot
E	<i>bon</i>	<i>chaud</i>	hot
F	<i>tiède, bon</i>	<i>chaud</i>	hot
G	<i>étouffant</i>	<i>chaud</i>	hot
H	<i>chaud</i>	<i>chaud</i>	warm
I	<i>tiède</i>	<i>chaud</i>	hot
J	<i>bon</i>	<i>chaud</i>	hot
K	<i>chaud/bon</i>	<i>chaud/très chaud</i>	hot
L	<i>bien</i>	<i>chaud</i>	hot
M	<i>(food) tiède/ (temperature) chaud</i>	<i>chaud/brûlant</i>	hot
N	<i>(skin, water) chaud/ (weather) temperé</i>	<i>chaud</i>	hot
O	<i>(liquids) tiède/ (weather) bon</i>	<i>chaud</i>	hot
P	<i>chaud</i>	<i>chaud</i>	hot/warm
Q	<i>chaud</i>	<i>brûlant</i>	warm

Vita

Elizabeth Marie Neuerburg Addison grew up in California and Missouri. She moved to Louisiana before college and attended Loyola University New Orleans, graduating *cum laude* and with University Honors when she earned her Bachelor of Arts in French in 2003. She spent the following academic year in Belfort, France, teaching English in elementary schools. In 2004, she moved to Baton Rouge, Louisiana, to attend Louisiana State University where she has been a graduate student in the Department of French and Francophone Studies ever since. While teaching beginning level French courses, she is currently pursuing her doctorate in French linguistics.